



WHITBY

ACTIVITY CENTRE PLAN





TITLE:	Whitby Activity Centre Plan
PROJECT:	Whitby Activity Centre
PREPARED FOR:	DMG as project directors for Golden Group
REFERENCE:	GOG WHI
STATUS:	For Final Approval following WAPC Modifications
VERSION:	2
DATE OF RELEASE:	May 2021
AUTHOR:	R. Duckham
GRAPHIC DESIGN:	R. Franca
APPROVED BY:	T. Willday

DISCLAIMER & COPYRIGHT

RobertsDay acts in all professional matters as a faithful advisor to its clients and exercises all reasonable skill and care in the provision of its professional services. The information presented herein has been compiled from a number of sources using a variety of methods. Except where expressly stated, RobertsDay does not attempt to verify the accuracy, validity or comprehensiveness of any information supplied to RobertsDay by third parties. RobertsDay makes no warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, validity or comprehensiveness of this document, or the misapplication or misinterpretation by third parties of its contents.

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favouring by RobertsDay.

This document cannot be copied or reproduced in whole or part for any purpose without the prior written consent of RobertsDay.

CITATION

This document should be cited as follows:
R. Duckham. (2018), Whitby Activity Centre Plan, prepared by RobertsDay Pty Ltd.
©Roberts Day Pty Ltd, 2018

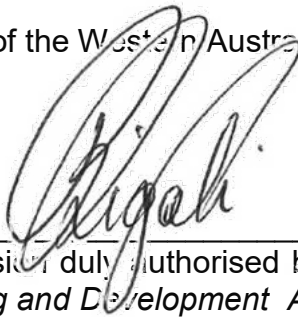
ABN 53 667 373 703, ACN 008 892 135

www.robertsday.com.au

This structure plan is prepared under the provisions of the Shire of Serpentine Jarrahdale Local Planning Scheme No. 2.

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON: **30 JULY 2021**

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant to Section 16 of *the Planning and Development Act 2005* for that purpose, in the presence of:



Witness

02 AUGUST 2021

Date

30 JULY 2031

Date of Expiry



Table of Amendments

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	AMENDMENT TYPE	DATE APPROVED BY WAPC



Contents

Executive Summary 6

Part One: Implementation Section

1.0	Plan Operation.....	11
1.1	Activity Centre Plan Area	11
1.2	Activity Centre Plan Structure.....	11
1.3	Relationship to Scheme.....	11
1.4	Relationship to Other Plans and Policies.....	11
1.5	Commencement	11
1.6	Activity Centre Plan Map and Plan Series.....	11
1.7	Implementation and Staging.....	11
2.0	Plan Controls	12
2.1	Precincts	12
2.2	Activity.....	15
2.3	Built Form	21
3.0	Other Requirements	31
3.1	Local Development Plans.....	31
3.2	Parking Controls.....	32
3.3	Additional Development Requirements.....	33
4.0	Definitions	34
5.0	Implementation Section Plan Series	34

Part Two: Explanatory Section

1.0	Introduction.....	44
1.1	Plan Purpose.....	44
1.2	Plan Context	44
1.3	Land Details	45
1.4	Physical Attributes.....	46
1.5	Heritage and History	48
2.0	Context.....	49
2.1	Regional Context	49
2.2	Local Context and Surrounding Land Uses.....	53
2.3	Planning Context.....	64
3.0	Activity Centre Plan Response	78
3.1	Place Vision	78
3.2	Plan Overview.....	78
3.3	Activity	86
3.4	Access and Movement.....	93
3.5	Public Domain.....	101
3.6	Built Form	109
3.7	Sustainability and Resource Efficiency.....	110
3.8	Water Management	112
3.9	Management of Other Impacts	112
3.10	Illustrative Masterplan.....	113
4.0	Delivery Framework	115
4.1	Servicing and Infrastructure.....	115
4.2	Implementation and Staging.....	115
4.3	Monitoring and Review	117

Part Three: Appendices

Appendix 1:	Addendum Letter to approved Local Water Management Strategy
Appendix 2:	Retail Needs Assessment
Appendix 3:	Transport Noise Assessment
Appendix 4:	Transport Assessment
Appendix 5:	Bushfire Management Plan
Appendix 6:	Engineering Servicing Report
Appendix 7:	Landscape Strategy



Executive Summary

The Whitby district centre will be a place of consequence for the Mundijong-Whitby community. A lively place of shared experiences. A dynamic place supporting local employment, businesses and economic development. And, overall, a place for people to connect.

This activity centre plan (ACP) provides guidance and structure for development of the proposed district centre at Whitby, located in the Shire of Serpentine-Jarrahdale, 3km north of Mundijong town centre and 48km from the Perth CBD. It will serve as the primary activity centre within the Mundijong-Whitby district cell.

The vision for the centre, which underpins the design of the centre, the approach to the ACP and the guidance contained therein, is as follows:

Healthy, instinctive and welcoming; the Whitby Town Centre reflects its natural foothill landscape and evolving into an enterprising residential and employment hub for the Serpentine-Jarrahdale community.

It has a distinct civic-minded 'country town' atmosphere.

Its well-designed streets, amenities and public spaces that put people first facilitating a diverse friendly community, lively street encounters and locally unique experiences.

The desire to generate a "country town" atmosphere with genuine community connection is particularly important.

In addition, the development of the centre, guided by the ACP, seeks to:

- Provide opportunity for the establishment of local businesses (and therefore local employment), particularly by lowering planning and bureaucratic barriers to establish businesses in this location
- Recognise and retain vegetation, such as bushland identified as a local natural area identified by the Shire, which provides ecological and social value to the community
- Ensure shops and businesses in the centre are easy and appealing to walk or cycle to, by creating a pleasant environment
- Provide a diverse range of housing, appropriately located near activity, and complementing housing choice offered elsewhere in the Whitby estate

To achieve this, the ACP proposes a precinct based approach, focusing activity (such as retail and community uses) on a lively main street, providing separate space for larger, often car-dependent uses, dedicating space to development that can easily accommodate both residential and commercial uses, and providing quieter areas for mainly residential uses.

These precincts are distributed across a robustly designed centre, able to accommodate and adapt to retail and commercial trends, changing circumstances, and organic growth over time.

The ACP, in both its guidance and design, also acknowledges potential opportunities for and risks to the centre, including:

- Enabling easy accommodation of a future passenger train station, should one be established in the future
- Acknowledging the spatial constraints of the site, mainly created by sensitively managing stormwater, retaining bushland, maintaining acoustic amenity, and retaining appropriate buffers from valued wetlands
- Accommodating future widening of the main street to accommodate large traffic volumes, while seeking to ensure that the main street remains a low-speed environment and does not become a hostile barrier for the centre
- Recognising that the Cardup precinct (2km to the north) is likely to contain a range of uses, including service commercial and larger format retail, and avoiding direct competition for these uses (to the detriment of both Cardup and Whitby)
- Identifying that the freight rail may be relocated in the future, but that in the meantime acoustic impacts are managed, and space is provided for a bridge to cross the rail line at the centre and promote accessibility

Within the centre, the ACP proposes non-residential floorspace of up to 31,000sqm, of which, shop retail would comprise approximately 22,000sqm. Development of the balance of non-residential floorspace can be accommodated but would often include larger format retail, more likely to be provided in Cardup. This space correlates to approximately 1000 jobs being created in the centre.



The residential density proposed recognises the policy guidance on higher density targets near activity centres, and also site-specific constraints. The minimum yield for the centre is 592 dwellings, which will be challenging to deliver but will offer genuine diversity.

Implementation of the ACP – and development of the centre – will be dependent on the development of the catchment that the centre will serve (including the district cell, and areas further to the east and south). Programming for the centre’s development has therefore been couched in terms of occupied dwellings within the catchment, rather than using timeframes and target dates.

There is an opportunity to develop Whitby district centre into a distinctive and appealing place, cherished by the community. Ultimately, the proponent, the Shire and a range of stakeholders will share responsibility for the careful stewardship of the centre as it develops, to retain a country town atmosphere that connects people, values connection to nature, and stimulates local employment and economic development.





ITEM	DATA	STRUCTURE PLAN REF (SECTION NO.)
Total area covered by the structure plan	40.1 hectares	Part 2 Section 1.3
Area of each land use proposed:	Hectares Lot yield	
Residential (includes Transition precinct)	21.3 hectares	Part 2 Section 3.3.5
Commercial	8.3 hectares	Part 2 Section 3.3.3
(Includes Retail)	6.1 hectares	Part 2 Section 3.3.3
Total estimated (residential) lot yield	377 lots	Part 2 Section 3.3.5
Estimated number of dwellings	Minimum 592 dwellings	Part 2 Section 3.3.5
Estimated residential site density	14.8 dwellings per gross hectare	Part 2 Section 3.3.5
Estimated population	1300 persons (assumes 2.2 persons per dwelling)	Part 2 Section 3.3.5
Number of high schools	0	NA
Number of primary schools	0	NA
Estimated commercial floor space	31,000sqm net lettable area	Part 2 Section 3.3.3
Estimated area and percentage of public open space given over to:		
Regional open space	0 hectares	Part 2 Section 3.5.2
District open space	0 hectares	Part 2 Section 3.5.2
Neighbourhood parks	11.5549 hectares	Part 2 Section 3.5.2
Local parks	0.5699 hectares	Part 2 Section 3.5.2
Estimated percentage of natural area	12.1248 hectares 30.2 %	Part 2 Section 3.5.2

Note: Public open space calculations, including drainage calculations, to be calculated and monitored together with the Whitby Local Structure Plan



PART 1

IMPLEMENTATION SECTION





1.0 Plan Operation

1.1 Activity Centre Plan Area

This Activity Centre Plan (ACP) shall apply to the areas of Lots 26, 9005 and 9008, and a small portion of adjacent road reserve depicted as the land contained within the inner edge of the line denoting the ACP boundary on the Activity Centre Plan map (ACP map).

1.2 Activity Centre Plan Structure

The ACP has been drafted in the manner and form outlined in the Planning and Development (Local Planning Schemes) Regulations 2015 (the Deemed Provisions), as automatically incorporated into the Shire of Serpentine Jarrahdale Town Planning Scheme No 2 (the Scheme), and accompanying Structure Plan Framework (Aug 2015) and shall be given due regard to when making decisions on the subdivision and development of land within the ACP area.

- Part One: Comprises the ACP maps and planning provisions.
- Part Two: To be used as a reference guide for the interpretation and implementation of Part One.
- Appendices: Contains technical reports and other supporting information used to inform the ACP.

1.3 Relationship to Scheme

This ACP shall be given due regard when considering applications for subdivision or development.

- a. In the event of there being any variations or conflict between the provisions, standards or requirements of the applicable Scheme and the provisions, standards or requirements of Part One of this ACP, then the provisions, standards or requirements of the Scheme shall prevail to the extent of any inconsistency.
- b. Provisions, standards or requirements of Part One of the ACP that are not otherwise contained in the Scheme, shall be given due regard when considering an application for subdivision or development.

1.4 Relationship to Other Plans and Policies

Where the ACP is inconsistent with a local government planning policy, the ACP shall prevail to the extent of any inconsistency.

1.5 Commencement

The date the ACP comes into effect is the date the ACP is approved by the WAPC. This ACP shall have effect for a period of ten years in accordance with the provisions of the Deemed Provisions.

1.6 Activity Centre Plan Map and Plan Series

The ACP map allocates land to precincts, and the ACP plan series provides additional guidance for development of the private and public realm within the ACP Area. The ACP map and other plans are provided at the end of Part 1 of the ACP.

1.7 Implementation and Staging

There are no significant servicing issues that constrain staging of development within the ACP area. Development of the activity centre can generally be progressed as its immediate catchment (being the Mundijong Whitby district cell) also develops. The following infrastructure items are required prior to the occupation of development in the centre:

- The construction of Skyline Boulevard to the edge of the ACP area
- The extension of services to the ACP area



2.0 Plan Controls

2.1 Precincts

The ACP area has been divided into five precincts in this plan (refer Plan 1), generally characterised by varying intensity of development and varying mix of uses. The precincts are as follows:

- Main Street
- Commercial
- Transitional
- Centre Living
- Residential

The precincts correspond to zones in the Scheme as outlined in Table 1 below:

Table 1: ACP Precincts and Scheme Zones

ACP PRECINCT	CORRESPONDING ZONE IN THE SCHEME
Main Street	Town Centre
Commercial	Mixed Use
Transitional	Mixed Use
Centre Living	Residential
Residential	Residential

These precincts are used as the primary organising principle for the centre, with development provisions varied in Part 1 of this ACP in accordance with the Deemed Provisions and other relevant guidance to reflect and achieve the intended function and character of each precinct.

2.1.1 Vision, Precinct Objectives and Intended Character

The vision for the centre is as follows:

Healthy, instinctive and welcoming; the Whitby Town Centre reflects its natural foothill landscape and evolving into an enterprising residential and employment hub for the Serpentine-Jarrahdale community.

It has a distinct civic-minded 'country town' atmosphere.

Its well-designed streets, amenities and public spaces that put people first facilitating a diverse friendly community, lively street encounters and locally unique experiences.

Objectives and intended character for each precinct are as follows, including aspirations for land use mix, activation, economic and employment generation, built form, and the public realm.



Table 2: Objectives and Intended Character for Precincts

PRECINCT	OBJECTIVES AND INTENDED CHARACTER
Main Street	<ul style="list-style-type: none"> • The Main Street precinct heart of the centre, most strongly evoking a country town atmosphere in public realm architecture, land use, opportunity for human interaction, and the sense of community connection it generates • It should include a mix of uses, including significant ground floor retail uses (including supermarkets); ample food and beverage choices; well used community spaces; and civic, some medical, and other commercial uses • This precinct should generate the most activation and activity, with uses and tenancies curated to generate interest • Uses in this precinct should be significant generators of employment, more so than other precincts • Buildings should be articulated, capture interest and frame the public realm with judicious use of height • Streets should be low-speed (no greater than 40kph), and welcoming to pedestrians, featuring intensive planting of street trees, awnings, medians for easy crossing and ample space for pedestrians
Commercial	<ul style="list-style-type: none"> • The Commercial precinct complements the Main Street precinct, providing for uses that are important to the centre but are sometimes not best suited to a main street environment • It should provide for a wide range of retail and other commercial uses, including some of larger format or lower intensity than would appear on the Main Street • Commercial uses will still generate some on-street activity. Some uses will attract more vehicular, rather than pedestrian trips • Uses in the precinct should generate employment, often in keeping with larger format and diverse range of uses • Buildings provide some interest and articulation to the street, using architectural elements to break up building bulk and sleeve larger buildings • Streets should be pedestrian-friendly, ensuring a pleasant walking environment through the coordination of movement and access for cars to ensure minimal disruption to pedestrians
Transitional	<ul style="list-style-type: none"> • The Transitional precinct provides residential uses, and organic growth of non-residential uses • Uses will include residential, and smaller businesses (non-residential uses) such as retail, café/restaurant and office • Many buildings will generate less on-street activity, particularly residential and smaller scale offices • Non-residential uses that generate some employment within smaller tenancies distributed sporadically throughout the precinct • Buildings should be capable of easy conversion between uses, often featuring units and tenancies with narrower frontages that ensure articulation in built form • Streets should provide shade and a pleasant walking environment, and be designed for lower vehicle speeds



PRECINCT	OBJECTIVES AND INTENDED CHARACTER
Centre Living	<ul style="list-style-type: none">• The Centre Living precinct provides for higher density living areas as a key pillar of housing diversity, located to promote walkability• The precinct should feature a diverse range of higher density residential uses, with occasional non-residential uses• Buildings will range in height. Building articulation and architectural design will serve to break down the bulk of larger buildings• Activity in this precinct will be commensurate with a mainly residential area. Proximity to other precincts will increase foot traffic• Employment-generating uses in this precinct will be small-scale.• The public realm, comprising the design of streets and high quality open spaces will be an important source of amenity
Residential	<ul style="list-style-type: none">• A medium density precinct also intended to contribute to the diversity of housing offered• Uses will be mainly residential, especially grouped dwellings or single residential, with limited small scale non-residential uses possible• Diverse and smaller lots will result in natural variation, articulation and interest• Activity in the precinct is generally in keeping with an overall residential character• Minimal employment-generating uses will be located in this precinct• Streets reflect the residential character, with investment in the public realm complemented by front setback design, and high quality pedestrian infrastructure encouraging walking

2.1.2 Exercise of Discretion

Where discretion is required to be exercised under this ACP in relation to development requirements, due regard must be given to:

- the relevant provisions of the Scheme;
- the vision for the ACP;
- the relevant objectives and intended character for the applicable precinct;
- intended or preferred uses for the applicable precinct; and
- orderly and proper planning.



2.2 Activity

2.2.1 Preferred Uses

The following uses represent those activities most aligned with the objectives and intended character of each precinct, and are therefore considered preferred uses for each precinct.

Table 3: Preferred Uses by Precinct

PRECINCT	PREFERRED USES
Main Street Precinct	<u>Ground floor:</u> shop (includes supermarket), restaurant, tavern, medical centre, civic buildings, child minding centre, <u>Upper floors:</u> offices, residential (multiple dwellings)
Commercial Precinct	Shop (includes discount department store), showrooms, offices, fast food/take away, convenience store, service station
Transitional Precinct	Home business, home occupation, office, shop, restaurant, residential (multiple dwelling, grouped dwelling and single house)
Centre Living Precinct	Residential (multiple dwelling, grouped dwelling and single house)
Residential Precinct	Residential (grouped dwelling and single house)

2.2.2 Permissibility and Controls

2.2.2.1 Use Class Table

The Land Use Permissibility Table (Table 4, Land Use Permissibility Table) identifies the use class permissibility within each of the designated precincts and their subsequent land use types.

The symbols used in the cross reference in Table 4. Land Use Permissibility Table have the following meanings:

- 'P' means that the use is permitted by the ACP enacted by the Scheme providing the use complies with the relevant development standards and the requirements of the ACP;
- 'AA' means that the use is not permitted unless the local government has exercised its discretion by granting planning approval;
- 'SA' means that the use is not permitted unless the local government has exercised its discretion by granting planning approval after giving special notice in accordance with clause 64 of the Deemed Provisions;
- 'IP' means a use that is not permitted unless such use is incidental to the predominant use;
- An asterisk (**) means that the use is only permitted on an interim basis, subject to clause 2.2.2.3 of the ACP, and also subject to the permissibility indicated (P, AA or SA); and
- An empty cell in Table 4 means a use that is not permitted.

The following table records the permissibility of uses by precinct in the ACP area. Unless stated otherwise in Section 4.0 of Part 1 of this ACP, the uses have the same definition as in the Scheme.



Table 4: Land Use Permissibility Table

USE CLASS	MAIN STREET	COMMERCIAL	TRANSITIONAL	CENTRE LIVING	RESIDENTIAL
Aged or Dependent Persons Dwelling	AA	AA	AA	AA	AA
Amusement Parlour	SA				
Animal Husbandry					
Apiary					
Aquaculture					
Automotive & Marine Sales					
Automotive Repairs					
Automotive Vehicle Wash					
Automotive Wrecking					
Car Park	AA	AA	IP		
Caravan or Trailer Hire		AA			
Caravan Park					
Caretaker's Dwelling					
Cattery					
Cemetery					
Child Minding Centre	P	AA	AA	SA	SA
Civic Buildings	P	AA	AA		
Club Premises	AA	AA			
Commercial Vehicle Parking		SA	SA		
Consulting Rooms	P	P	AA		
Convenience Store	AA	P	AA		
Corner Store	AA		P	AA	
Craft Workshop					
Display Home			P	P	P
Display Home Centre			P	P	P
Dog Kennels					
Dry Cleaning Premises	P	P			



USE CLASS	MAIN STREET	COMMERCIAL	TRANSITIONAL	CENTRE LIVING	RESIDENTIAL
Educational Establishment	AA	AA	AA		
Environment Research Centre					
Equestrian Activity					
Farriery					
Fast Food/Takeaway	AA	P			
Feed Lot					
Floriculture (Extensive)					
Fodder and Pasture					
Fuel Depot					
Funeral Parlour					
Health Studio	P	AA	AA		
Hobby Farm					
Holiday Accommodation					
Home Business	P	P	P	SA	SA
Home Occupation	P	P	P	AA	SA
Hospital					
Hotel					
Hydroponics					
Industry: Cottage		SA	SA		
Industry: Extractive					
Industry: General					
Industry: Hazardous					
Industry: Light					
Industry: Noxious					
Industry: Rural					
Industry: Service					
Marine Collectors Yard					
Market	AA	AA	AA		



USE CLASS	MAIN STREET	COMMERCIAL	TRANSITIONAL	CENTRE LIVING	RESIDENTIAL
Medical Centre	P	P	SA		
Motel					
Nightclub		SA			
Office	P	P	AA		
Orcharding					
Pig Farming					
Plant Nursery	AA*	AA*			
Poultry Farm (Housed)					
Private Recreation	SA*				
Private Tree Plantation					
Produce Store					
Public Amusement	SA	AA	SA		
Public Utility					
Public Worship - Place of		AA	AA		
Radio, TV and Communication Installation	SA	SA	SA	SA	SA
Reception Centre		SA			
Recreation Public	AA			SA*	SA*
Residential Building			SA	SA	
Residential Sales Office	P	P	P	SA	SA
Residential: Ancillary Accommodation				P	P
Residential: Grouped Dwelling		AA	P	P	P
Residential: Multiple Dwelling	AA	AA	AA	AA	SA
Residential: Single House			P	P	P
Restaurant	P		SA		
Rural Use					
Rural Workers Dwelling					
Service Station	SA	SA			
Shop	P	P	SA		



USE CLASS	MAIN STREET	COMMERCIAL	TRANSITIONAL	CENTRE LIVING	RESIDENTIAL
Shopping Centre	SA				
Showroom		AA			
Small Bar	AA		SA		
Stable					
Stall-wayside					
Tavern	SA				
Trade Display					
Transport Depot					
Vehicle Hire					
Veterinary Establishment	AA	AA	SA		
Viticulture					
Warehouse		SA			

Note: Maximum sizes for uses are as follows:

- *Plant Nursery: 2000sqm maximum site area (maximum is applicable within the Main Street precinct only),*
- *Restaurant: 50sqm maximum net lettable area, excluding alfresco areas (maximum is applicable within the Transitional and Centre Living precincts only)*
- *Health Studio: 400sqm maximum net lettable area in the Transitional precinct and in the Main Street precinct. Must be on the ground floor in the Main Street precinct.*



2.2.2.2 Uses Not Listed

A use not listed in Table 3 and which cannot reasonably be determined as being included in the general terms of any of the uses listed may only be approved if notice of the development is first given in accordance with clause 64 of the Deemed Provisions.

2.2.2.3 Interim Uses

Council may determine to approve an 'interim land use' and associated development within the Activity Centre Plan area, in accordance with the permissibility as indicated on Table 3, subject to the following:

- a. The applicant shall demonstrate that any building or structure associated with the interim use:
 - i. is in keeping with the objectives and intended character of the Activity Centre Plan or applicable precinct;
 - and
 - ii. contributes to the public realm;
 - and either
 - iii. forms part of a large staged proposed built form (whether lodged for development approval or not);
 - or
 - iv. features an internal floor space and tenancy configuration that is adaptable and capable of accommodating active ground floor uses or more employment generating land uses over time (or otherwise be appropriately adapted to suit an appropriate permanent use); or
 - v. be easily removed from the site and the site appropriately remediated to the City's satisfaction.
- b. Council may impose a condition stating that the approval period for interim development is to be a maximum of up to 10 years, which may be renewed or extended by a further 10 years where deemed appropriate by Council.

2.2.3 Residential Density Ranges

- a. The following densities and density ranges shall apply to precincts within the ACP:

Table 5: Density Ranges

PRECINCT	RESIDENTIAL DENSITY RANGES
Main Street Precinct	R-AC2
Commercial Precinct	R-AC3
Transitional Precinct	R50-R100
Centre Living Precinct	R50-R80 #
Residential Precinct	R30-R60 #

Note: # - Land in Centre Living and Residential precincts may be allocated densities of up to R100 if within 800m of an existing or proposed rail station

- b. Lot-specific residential densities, generally in accordance with the defined residential density ranges, are to be subsequently assigned in accordance with a Residential Density Code Plan approved by the Western Australian Planning Commission.
- c. A Residential Density Code Plan is to be submitted at the time of application for subdivision approval to the Western Australian Planning Commission, and shall indicate the Residential Density Coding applicable to each lot within the subdivision and shall be generally consistent with the residential density ranges identified in the ACP.
- d. Density as depicted on the Residential Density Code Plan comes into effect on creation of the applicable lot.



2.3 Built Form

2.3.1 Objectives

The built form controls reinforce the precinct-led approach to development of the centre. Built form controls for each precinct are intended to realise objectives and intended character for each precinct, and to enable a desirable land use mix to be delivered.

Development standards in this section are intended also to complement street design and, in particular, residential amenity to promote activity and interest.

2.3.2 Development Controls

2.3.2.1 Ability to Vary

As a due regard document, the ACP provides for variations to the standards set out in section 2.3.3.2 below, in determining development applications, Local Development Plans, or in making other relevant planning decisions. All variations shall be considered having regard to the factors outlined in section 2.1.2 of the ACP.

2.3.2.2 General Planning Controls

The following provisions apply to all precincts within the ACP

Table 6: General Planning Controls

ELEMENT	REQUIREMENT
Setbacks	<ol style="list-style-type: none"> 1. Setback requirements for development with a residential land use component shall be in accordance with the Residential Design Codes of WA and/or Design WA where the setback requirement is relevant to the amenity of occupants of dwellings within or adjacent to the development 2. All precincts within the ACP area shall be characterised as having the “attached” streetscape patterns, in accordance with the definitions, stipulations and guidance in Design WA.
Heights	<ol style="list-style-type: none"> 3. Notwithstanding specific height controls, heights for non-residential buildings may be varied: <ol style="list-style-type: none"> a. On identified sites of building significance, or b. Where it can be demonstrated the proposed building height is in keeping with the desired character of the precinct and centre
Building Orientation	<ol style="list-style-type: none"> 4. Unless otherwise provided for, buildings shall be oriented to the primary street frontage
Facades and Building Frontages	<ol style="list-style-type: none"> 5. Blank walls shall not be visible from the public realm, except abutting a side boundary on which it is anticipated that another building will eventually be constructed to screen the wall. In such instances, design features shall be incorporated into the portions of the wall visible from the public domain.
Corner Sites	<ol style="list-style-type: none"> 6. Buildings located on corner sites shall emphasise the prominence of the street corner via architectural features that may protrude above the normal roof line



ELEMENT	REQUIREMENT
Access and Car Parking	<p>7. Vehicular access to development sites shall be discouraged from the main street, and should be provided via secondary streets or laneways wherever practicable</p> <p>8. Where vehicular access from the main street is unavoidable, its impact on the street shall be minimised by:</p> <ul style="list-style-type: none"> a. Encouraging shared access to two or more development sites b. Designing access points and crossovers to be as narrow as possible c. Designing access points to be entered and exited at very low speed d. Managing the design and operation of access points to safeguard pedestrian crossing points, as generally located on Plan 4 <p>9. At-grade parking areas shall generally be set away from the street and screened from the street where appropriate.</p> <p>10. At-grade uncovered parking bays shall be landscaped with shade trees at a rate of one tree per four car bays.</p>
Weather Protection	<p>11. Awnings shall be provided wherever a nil setback is proposed.</p> <p>12. Awnings shall have a minimum clearance height of 2.5 metres from the footpath.</p>
Ground Floor and Active Frontages	<p>13. Dedicated entries to commercial, residential, and other non-retail uses on upper floors are to be clearly articulated and incorporated into the design of the ground floor.</p> <p>14. Where possible, building and tenancy entries are to align with pedestrian crossing points, as generally located on Plan 4</p>
Amenity (Incl Occupant Amenity)	<p>15. A waste management and disposal plan shall be prepared for all developments</p> <p>16. Bin storage areas shall be screened from the street</p> <p>17. Loading docks and service areas within development sites shall be screened visually and (where necessary) acoustically from residential units.</p> <p>18. Odour producing servicing elements (for example, waste compactus, extraction vents and storage) shall be suitably located or designed and treated in a manner that does not impact unacceptably on residential amenity in a mixed-use building.</p> <p>19. Developments are to incorporate design principles of Crime Prevention Through Environmental Design (CPTED), including boundary definition, passive surveillance and appropriate use of lighting</p>



2.3.2.3 Main Street Precinct

The following requirements apply to various elements of built form development within the Main Street Precinct.

Table 7: Main Street Precinct

ELEMENT	REQUIREMENT
Setbacks	<ol style="list-style-type: none"> 1. A preferred setback of nil to the ground floor front façade of buildings within the precinct, except <ol style="list-style-type: none"> a. where necessary to provide building articulation, or another feature that is in keeping with the desired character of the precinct, and b. where a setback adds amenity and interest to the streetscape. 2. Where ground floor setbacks are proposed, they may be used for alfresco or other means of activation, or viable civic spaces 3. All levels above the third floor shall be setback a minimum of 4.0 metres from the building line of the lower floors, although balconies may project 3.0 metres into the setback area. 4. Nil side setbacks for up to three floors are permitted for development within this precinct
Heights	<ol style="list-style-type: none"> 5. The minimum height for front facades shall be 7.6 metres, except on sites with direct frontage to public open space 6. For buildings with a residential land use component, maximum heights to be in accordance with Residential Design Codes of WA and/or Design WA. 7. For retail, commercial, civic and community, and institutional buildings, the maximum building height shall be five storeys.
Facades and Building Frontages	<ol style="list-style-type: none"> 8. Above the ground floor, building facades shall be articulated to break-up straight plain facades, including, but not limited to, employing the following elements: <ol style="list-style-type: none"> a. A variety of materials, colours and textures b. Windows and other openings c. Balconies d. Architectural details that include indentations and extrusions
Access and Car Parking	<ol style="list-style-type: none"> 9. Parking on upper levels shall be appropriately screened from view behind building façade treatments. 10. Where a development orients to more than one street, parking may be visible to the secondary street where it is sufficiently softened by landscaping that contributes to streetscape amenity.
Weather Protection	<ol style="list-style-type: none"> 11. Where a building is set back from the lot boundary on a major pedestrian and cycle connection (as depicted on Plan 4), Council may require construction or contribution towards the construction of a separate shade structure over the footpath. 12. Awnings shall have a minimum depth of 3.0 metres from the property boundary, except where and to the extent required to be reduced to provide sufficient clearance from the road carriageway, or to accommodate street trees and street furniture.



ELEMENT	REQUIREMENT
Ground Floor and Active Frontages	<p>13. Tenancies presenting to the street shall be transparent and clear glazing, and shall not be blocked by signage or any other visual obstructions in accordance with the following requirements:</p> <ul style="list-style-type: none"> a. For Preferred Active Trading Frontages (as depicted on Plan 2), a minimum 75% of the ground floor tenancy frontage b. For Possible Active Trading Frontages (as depicted on Plan 2), a minimum 60% of the ground floor tenancy frontage <p>14. Floor to ceiling heights on the ground floor retail and commercial tenancies shall be a minimum of 3.5 metres.</p> <p>15. Retail tenancies shall typically have a street frontage of between 6.0m and 9.0m except where:</p> <ul style="list-style-type: none"> a. A larger tenancy is expressed as a series of shopfronts with multiple entry points and window displays that allow visual transparency to the tenancy beyond; and b. For large format tenancies, multiple entry points are permitted where each entry is sleeved by small format tenancies. <p>16. Residential land uses at ground level are generally discouraged within this precinct, except for lobbies, servicing areas and entries to upper floors of buildings.</p> <p>17. Building entry points shall directly face the primary street and include architectural features, distinct variation in materials or design elements, or prominent signage to highlight entry points</p> <p>18. Unless otherwise stated, these provisions for active frontages may be varied where a frontage is designated as "Possible Active Trading Frontage" or not designated as an active frontage on Plan 2. Any such variation shall otherwise be generally consistent with the relevant objectives and intended character of the precinct.</p>
Landscaping	<p>19. Landscaping for non-residential developments is to be provided in accordance with Council provisions unless it can be demonstrated that the reduction in landscaping will help meet other design provisions or the relevant precinct objectives, and that sufficient landscaping amenity can be provided in the adjacent public realm</p>



2.3.2.4 Commercial Precinct

The following requirements apply to various elements of built form development within the Commercial Precinct.

Table 8: Commercial Precinct

ELEMENT	REQUIREMENT
Setbacks	<ol style="list-style-type: none"> 1. A maximum average setback of 3.0 metres to the ground floor front façade of buildings shall apply within the precinct, except where necessary to provide a design feature that is in keeping with the desired character of the precinct and adds amenity and interest to the streetscape. 2. Where ground floor setbacks are proposed, the setback area may be used for alfresco or other activating uses 3. All levels above the third floor shall be setback a minimum of 4.0 metres from the building line of the lower floors, although balconies may project 3.0 metres into the setback area. 4. Nil side setbacks for up to three floors are permitted for development within this precinct
Heights	<ol style="list-style-type: none"> 5. The minimum height for front facades shall be 7.6 metres, except on sites with direct frontage to public open space. 6. For buildings with a residential land use component, maximum heights to be in accordance with Residential Design Codes of WA and/or Design WA. 7. For retail, commercial, civic and community, and institutional buildings, the maximum building height shall be five storeys.
Facades and Building Frontages	<ol style="list-style-type: none"> 8. Above the ground floor, building facades shall be articulated to break-up straight plain facades, including, but not limited to, employing the following elements: <ol style="list-style-type: none"> a. A variety of materials, colours and textures b. Windows and other openings c. Balconies d. Architectural details that include indentations and extrusions 9. Buildings that contain parapets shall include articulation to provide visual interest to the street, such as variation in height and capping, extrusions and indentations, and/or additional design detail
Access and Car Parking	<ol style="list-style-type: none"> 10. Parking on upper levels shall be appropriately screened from view behind building façade treatments. 11. Where a development orients to more than one street, parking may be visible to the secondary street where it is sufficiently softened by landscaping that contributes to streetscape amenity.
Weather Protection	<ol style="list-style-type: none"> 12. Where a building is set back from the footpath, Council may require construction or contribution towards the construction of a separate shade structure over the footpath. 13. Awnings shall have a minimum depth of 3.0m from the property boundary, except where and to the extent required to be reduced to provide sufficient clearance from the road carriageway, or to accommodate street trees and street furniture.



ELEMENT	REQUIREMENT
Ground Floor and Active Frontages	<p>14. Tenancies presenting to the street shall be transparent and clear glazing, and shall not be blocked by signage or any other visual obstructions in accordance with the following requirements:</p> <ul style="list-style-type: none">a. For Preferred Active Trading Frontages (as depicted on Plan 2), a minimum 75% of the ground floor tenancy frontageb. For Possible Active Trading Frontages (as depicted on Plan 2), a minimum 60% of the ground floor tenancy frontage <p>15. Floor to ceiling heights on the ground floor retail and commercial tenancies shall be a minimum of 3.5m.</p> <p>16. Large format tenancies are encouraged to have multiple entry points and be sleeved by small format tenancies.</p> <p>17. Residential land uses at ground level are generally discouraged within this precinct, except for lobbies, servicing areas and entries to upper floors of buildings.</p> <p>18. Building entry points shall directly face the primary street and include architectural features, distinct variation in materials or design elements, or prominent signage to highlight entry points</p> <p>19. Unless otherwise stated, these provisions for active frontages may be varied where a frontage is designated as "Possible Active Trading Frontage" or not designated as an active frontage on Plan 2. Any such variation shall otherwise be generally consistent with the relevant objectives and intended character of the precinct.</p>
Landscaping	<p>20. Landscaping for non-residential developments is to be provided in accordance with Council provisions unless it can be demonstrated that the reduction in landscaping will help meet other design provisions or the relevant precinct objectives, and that sufficient landscaping amenity can be provided in the adjacent public realm</p>



2.3.2.5 Transitional Precinct

The following requirements apply to various elements of built form development within the Transitional Precinct.

Table 9: Transitional Precinct

ELEMENT	REQUIREMENT
Setbacks	<ol style="list-style-type: none"> 1. A maximum setback of 3.0 metres shall apply from the primary street, except where necessary to provide building articulation, or another feature that is in keeping with the desired character of the precinct and adds amenity and interest to the streetscape. 2. All levels above the third floor shall be setback a minimum of 4.0 metres from the building line of the lower floors, although balconies may project 3.0 metres into the setback area. 3. Nil side setbacks for up to three floors are permitted for development within this precinct
Heights	<ol style="list-style-type: none"> 4. The minimum height of 7.6 metres is encouraged for front facades. 5. For buildings with a residential land use component, maximum heights to be in accordance with Residential Design Codes of WA and/or Design WA. 6. For retail, commercial, civic and community, and institutional buildings, maximum building height shall be four storeys.
Facades and Building Frontages	<ol style="list-style-type: none"> 7. Above the ground floor, building facades shall be articulated and employ windows, balconies and major openings to break-up facades
Access and Car Parking	<ol style="list-style-type: none"> 8. Where a development orients to more than one street, parking may be visible to the secondary street where it is sufficiently softened by landscaping that contributes to streetscape amenity.
Weather Protection	<ol style="list-style-type: none"> 9. Where provided, awnings shall have a minimum depth of 2.5 metres from the property boundary, except where and to the extent required to be reduced to provide sufficient clearance to street trees and the road carriageway, or to accommodate street trees and street furniture.
Ground Floor and Active Frontages	<ol style="list-style-type: none"> 10. Individual units or tenancies shall typically have a street frontage of between 6.0 metres and 9.0 metres 11. Building entry points shall directly face the primary street and include architectural features, distinct variation in materials or design elements, or prominent signage to highlight entry points 12. Unless otherwise stated, these provisions for active frontages may be varied where a frontage is designated as "Possible Active Trading Frontage" or not designated as an active frontage on Plan 2. Any such variation shall otherwise be generally consistent with the relevant objectives and intended character of the precinct
Adaptability	<ol style="list-style-type: none"> 13. In considering whether a building is capable of adaptive re-use Council will have regard to the: <ol style="list-style-type: none"> a. Ability of the building to accommodate universal design b. Structure of internal spaces and loadbearing elements, allowing the addition or removal of dividing walls for the reconfiguration of leasable space c. Standard, range and location of services provided to the building d. Ability to provide vertical separation (for residential uses) e. Capacity to provide sufficient floor to ceiling height (particularly for non-residential uses)



**PART 1
IMPLEMENTATION SECTION**

ELEMENT	REQUIREMENT
Landscaping	14. Front setback areas are to be landscaped to the specification of Council, unless being used by non-residential uses to activate the street



2.3.2.6 Centre Living Precinct

The following requirements apply to various elements of built form development within the Centre Living Precinct.

Development requirements for development with a residential land use component shall be in accordance with the Residential Design Codes of WA and/or Design WA, as applicable.

For non-residential development the following standards and guidance apply:

Table 10:Centre Living Precinct

ELEMENT	REQUIREMENT
Heights	1. Maximum building height shall be four storeys.
Facades and Building Frontages	2. Articulation through variation of building line, regular use of windows and major openings, and use of architectural and design details, is encouraged
Weather Protection	3. Where provided, awnings shall have a minimum depth of 2.5m from the property boundary, except where and to the extent required to be reduced to provide sufficient clearance to street trees and the road carriageway, and to accommodate street trees and street furniture.
Ground Floor and Active Frontages	4. For non-residential or flexible tenancies, at least 60% of the primary street frontage is to be transparent and clear glazing and shall not be blocked by signage
Landscaping	5. Front setback areas are to be landscaped to the specification of Council, unless being used by non-residential uses to activate the street



2.3.2.7 Residential Precinct

The following requirements apply to various elements of built form development within the Residential Precinct.

Development requirements for development with a residential land use component shall be in accordance with the Residential Design Codes of WA and/or Design WA, as applicable

For non-residential development the following standards and guidance apply:

Table 11: Residential Precinct

ELEMENT	REQUIREMENT
Heights	1. Maximum building height shall be three storeys.
Facades and Building Frontages	2. Articulation through variation of building line, regular use of windows and major openings, and use of architectural and design details, is encouraged
Weather Protection	3. Where provided, awnings shall have a minimum depth of 2.5m from the property boundary, except where and to the extent required to be reduced to provide sufficient clearance to street trees and the road carriageway, and to accommodate street trees and street furniture.
Ground Floor and Active Frontages	4. For non-residential or flexible tenancies, at least 60% of the primary street frontage is to be transparent and clear glazing and shall not be blocked by signage
Landscaping	5. Front setback areas are to be landscaped to the specification of Council, unless being used by non-residential uses to activate the street



3.0 Other Requirements

3.1 Local Development Plans

3.1.1 Local Development Plans Required

A Local Development Plan (LDP) is required prior to development approval where required by a condition of subdivision approval, DesignWA or by the Residential Design Codes.

3.1.2 Content of Local Development Plans

Unless they are not considered relevant to a specific development or site, LDPs shall address the following elements

- a. Vehicular Access
- b. Car Parking
- c. Building Orientation
- d. Setbacks and building disposition
- e. Built form in respect of bulk, height, scale and architectural expression
- f. Landscaping in building setbacks
- g. Building entry points; and
- h. Public interface and relationship with streets and public open space

3.2 3.2 Subdivision

All indicative subdivision layouts, road designs and intersection treatments shown in this Activity Centre Plan and associated appendices are for conceptual purposes only and are subject to further investigation and detailed design at subdivision stage.



3.3 Parking Controls

3.3.1 Vehicular Parking

a. The following standards apply to land use and development within the ACP area:

Table 12: Car Parking Standards

LAND USE(S)	MINIMUM CAR PARKING REQUIREMENT
Amusement Parlour, Club Premises, Convenience Store, Corner Store, Fast Food/Takeaway, Market, Nightclub, Plant Nursery, Private Recreation, Public Amusement, Shop, Shopping Centre, Restaurant, Small Bar, Tavern	One bay per 20sqm net lettable area
Consulting Rooms, Medical Centre, Veterinary Establishment	6 spaces for 1 practitioner plus 4 for each additional practitioner
Residential (Single House, Grouped Dwelling, Multiple Dwelling, Ancillary Accommodation), Aged and Dependent Persons Accommodation	As per the Residential Design Codes and/or Apartment Design Guide, as applicable
Office	One space per 40sqm net lettable area
Showroom	One space per 60sqm net lettable area
Child Minding Centre	One space per five children accommodated
Radio, TV and Communication Installation, Home Business, Home Office, Industry: Cottage, Car Park	Nil
Caravan or Trailer Hire, Civic Buildings, Commercial Vehicle Parking, Display Home, Display Home Centre, Educational Establishment, Public Worship - Place of, Dry Cleaning Premises, Health Studio, Industry: Cottage, Reception Centre, Recreation Public, Residential Building, Residential Sales Office, Service Station, Warehouse	To be determined by Council

b. In calculating parking requirements, the following additional factors shall be considered:

- i. On-street parking shall be credited to adjacent or nearby land uses
- ii. Parking bays may be credited to more than one land use where those land uses are complementary, or where hours of operation will not result in undue conflicting demand for parking

3.3.2 Bicycle Parking and Facilities

- a. Bicycle facilities shall be provided in accordance with Local Planning Policy 4.15: Bicycle Facilities Policy.
- b. Bicycle parking and facilities for residents required under Local Planning Policy 4.15 may be deemed to be provided within residential units (including storage areas)



3.4 Additional Development Requirements

3.4.1 Signage Strategy

A signage strategy shall be prepared to cover the Main Street, Commercial and Transitional precincts. The strategy shall provide for the coordination of signage (including, but not limited to advertising signage), to address the following objectives:

- manage individual and cumulative visual impacts
- maintain and protect amenity, and
- ensure appropriate advertising exposure for businesses

In lieu of a Signage Strategy being finalised and approved by Council, signage may be approved by Council having regard to the relevant objectives of this ACP (including this section) and the applicable precinct, and the orderly and proper planning of the precinct and street environment.

3.4.2 Developer Contributions

Land within the ACP area is subject to the Developer Contributions Plan for Mundijong-Whitby, as identified within Clause 9.3 of the Scheme. A landowner shall be liable to make a cost contribution at the time and in the circumstances contemplated by the Scheme, and this will be imposed as a condition of subdivision or development approval, generally whichever is generated first.

3.4.3 Additional Information

The following table outlines information to be provided to fulfil the requirements of the ACP, where the information is relevant to a specific proposal.

Table 13: Additional Information

INFORMATION	STAGE REQUIRED	CONSULTATION REQUIRED
Noise Assessment*	Prior to development approval	Shire of Serpentine Jarrahdale
Local Development Plan	Condition of subdivision approval	Shire of Serpentine Jarrahdale
Transport Impact Assessment	Prior to development approval	Shire of Serpentine Jarrahdale
Parking Management Plan	may be required prior to development approval	Shire of Serpentine Jarrahdale
Landscaping Plan	Condition of subdivision or development approval	Shire of Serpentine Jarrahdale
Urban Water Management Plan	Condition of subdivision approval	Shire of Serpentine Jarrahdale
Specified BAL Ratings for Each Lot	Condition of subdivision approval	Shire of Serpentine Jarrahdale
Waste Management Plan	Condition of development approval	Shire of Serpentine Jarrahdale
Construction Environmental Management Plan	Condition of development approval	Shire of Serpentine Jarrahdale

*Note: *Required where subject land may be affected by acoustic impacts, as identified on Plan 1, and may be required where commercial development is proposed*



4.0 Definitions

The following definitions apply to terms in the ACP. Where a term is not listed in this section, terms have the same definition as in the Scheme

Bulky Goods Retail or **Showroom** means large premises used to display, sell by wholesale or retail, or hire goods such as automotive parts and accessories, home entertainment goods, camping and recreation equipment, household appliances, electrical light fittings, office equipment supplies, animal and pet supplies, party supplies, floor coverings, swimming pools and supplies, furnishings, bedding and manchester, hardware, furniture, garden supplies, goods of a bulky nature that require a large area for handling, display or storage; or direct vehicle access to the site of the premises by the public for the purpose of loading goods into a vehicle after purchase or hire.

Display Home means a dwelling and incidental car parking which is intended to be open for public inspection as an example of dwelling design

Display Home Centre means a group of two or more dwellings and incidental car parking which are intended to be open for public inspection as examples of dwelling design.

Interim Land Use means a land use that is permissible within the prescribed zone, and considered in keeping with the objectives of the precinct over a short term, but is not considered an appropriate long-term use of the land within the Activity Centre Plan area and/or precinct by reason of its nature, scale, form or intensity.'

Residential Sales Office means a building, structure and associated car parking used incidental to the sale of land dwellings.

"Sleeved" or "Sleeving" Building means a building directly fronting the street that also obscures a bulkier building or other feature (such as a car park) from being easily visible from the public realm

Small Bar means premises operating under a small bar licence as granted under section 41A of the Liquor Control Act 1988 (and therefore limited to a capacity of 120 persons)

Storey means a space within a building which is situated between one floor level and the floor level above, or if there is no floor above, the ceiling or roof above, but does not include:

- a. mezzanines;
- b. rooftop areas; or
- c. basement car parking or storage areas where the ceiling is not more than 1metre above natural ground level at any point.

5.0 Implementation Section Plan Series

Plan 1: Activity Centre Plan

Plan 2: Sites of Building Significance and Frontage Types

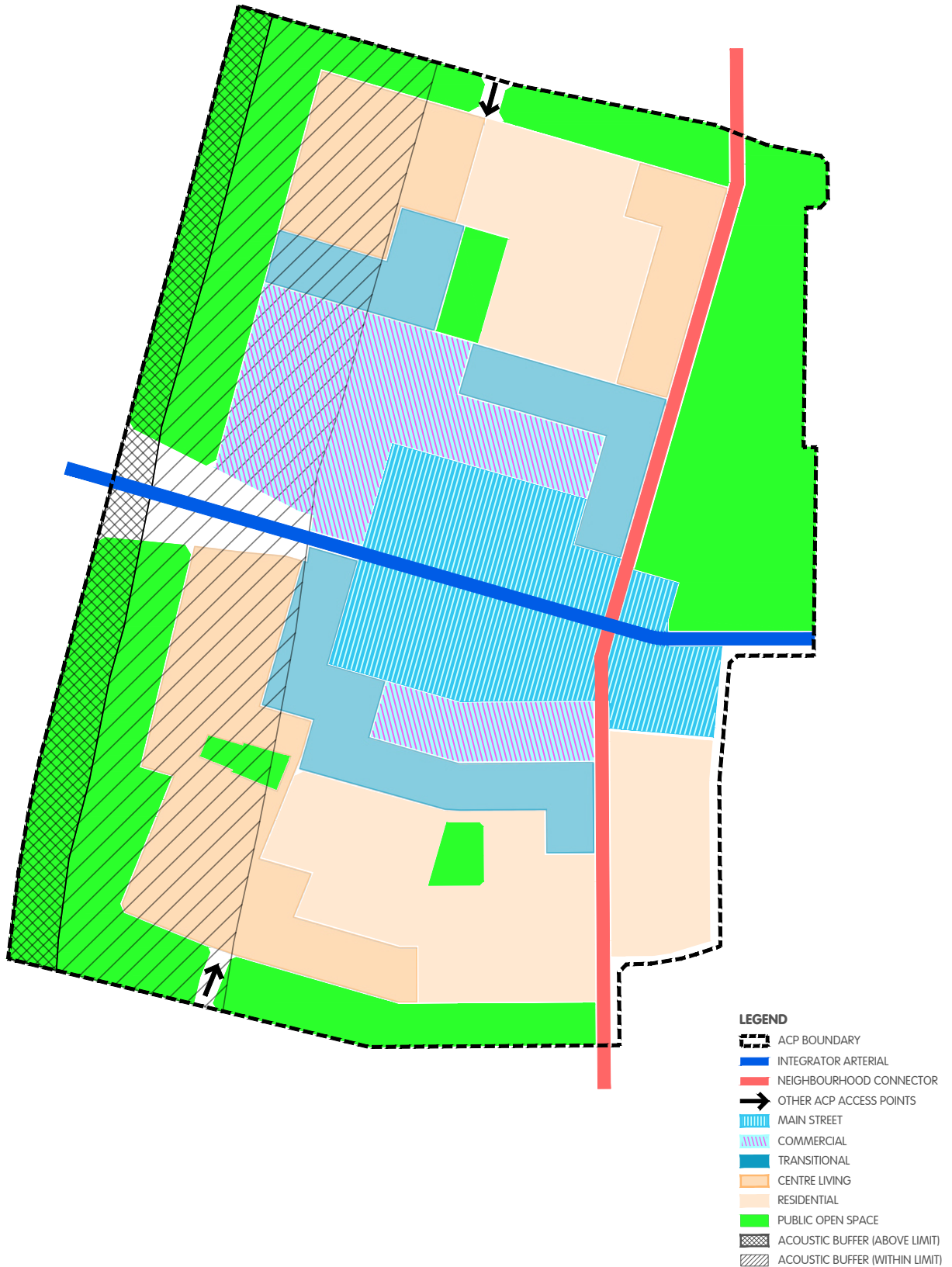
Plan 3: Street Typology Plan

Plan 4: Movement Network: Key Elements

Addendum: Street Sections

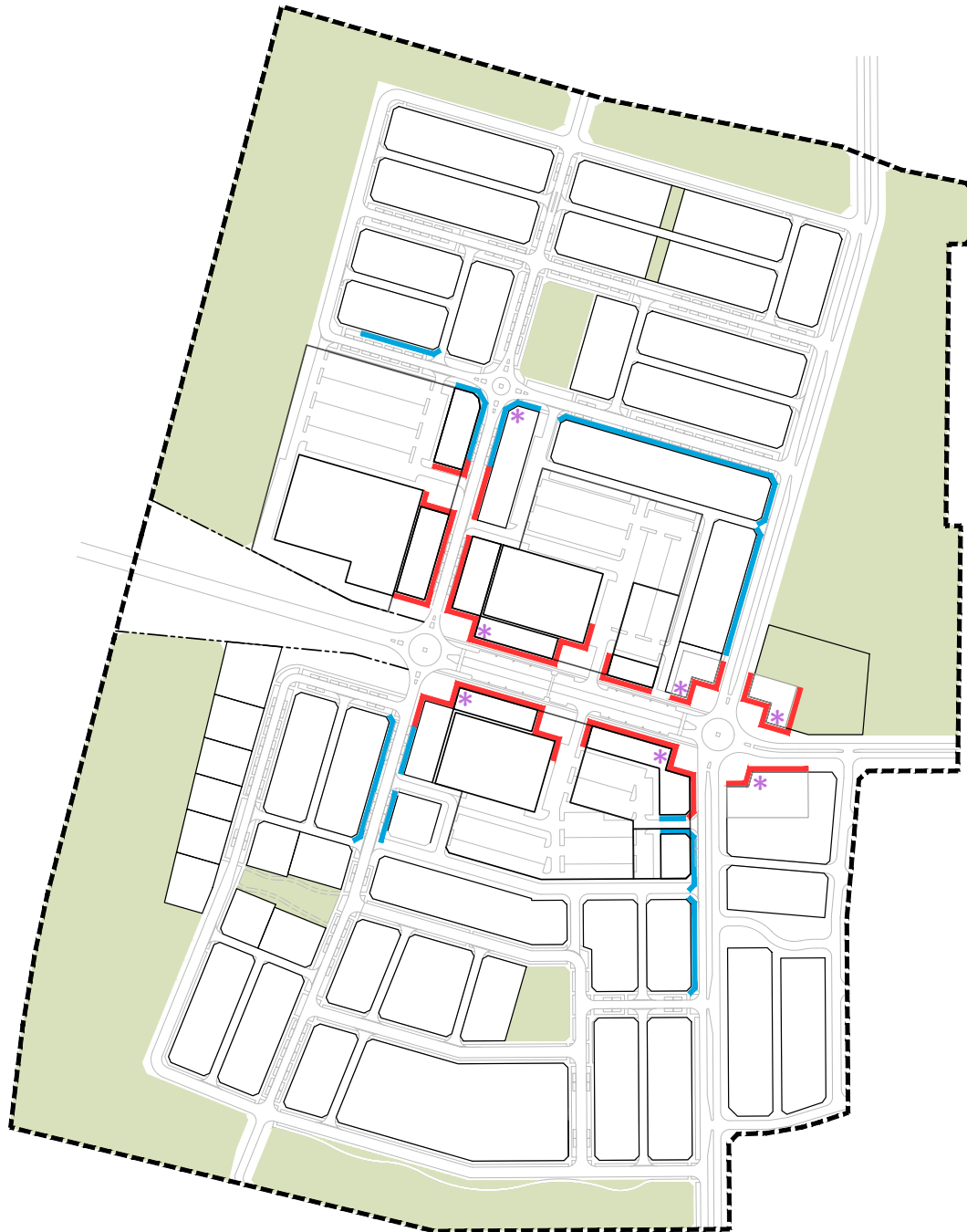


Plan 1: Activity Centre Plan








Plan 2: Sites of Building Significance and Frontage Types

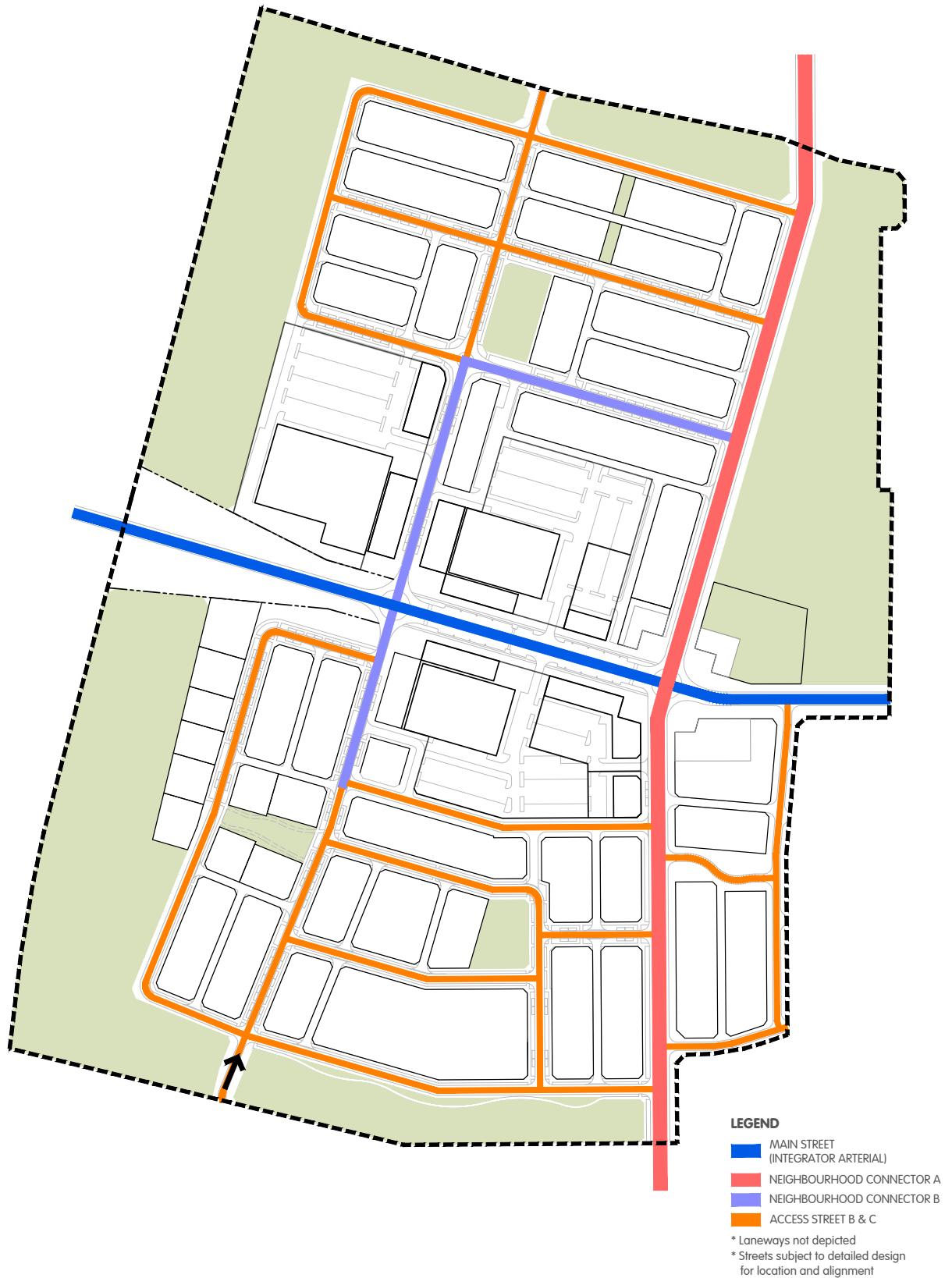


LEGEND

-  BUILDING SIGNIFICANCE
-  PREFERRED ACTIVE TRADING FRONTAGE
-  POSSIBLE ACTIVE TRADING FRONTAGE
- NOTE: BLANK FRONTAGES: PREFERRED RESIDENTIAL FRONTAGE

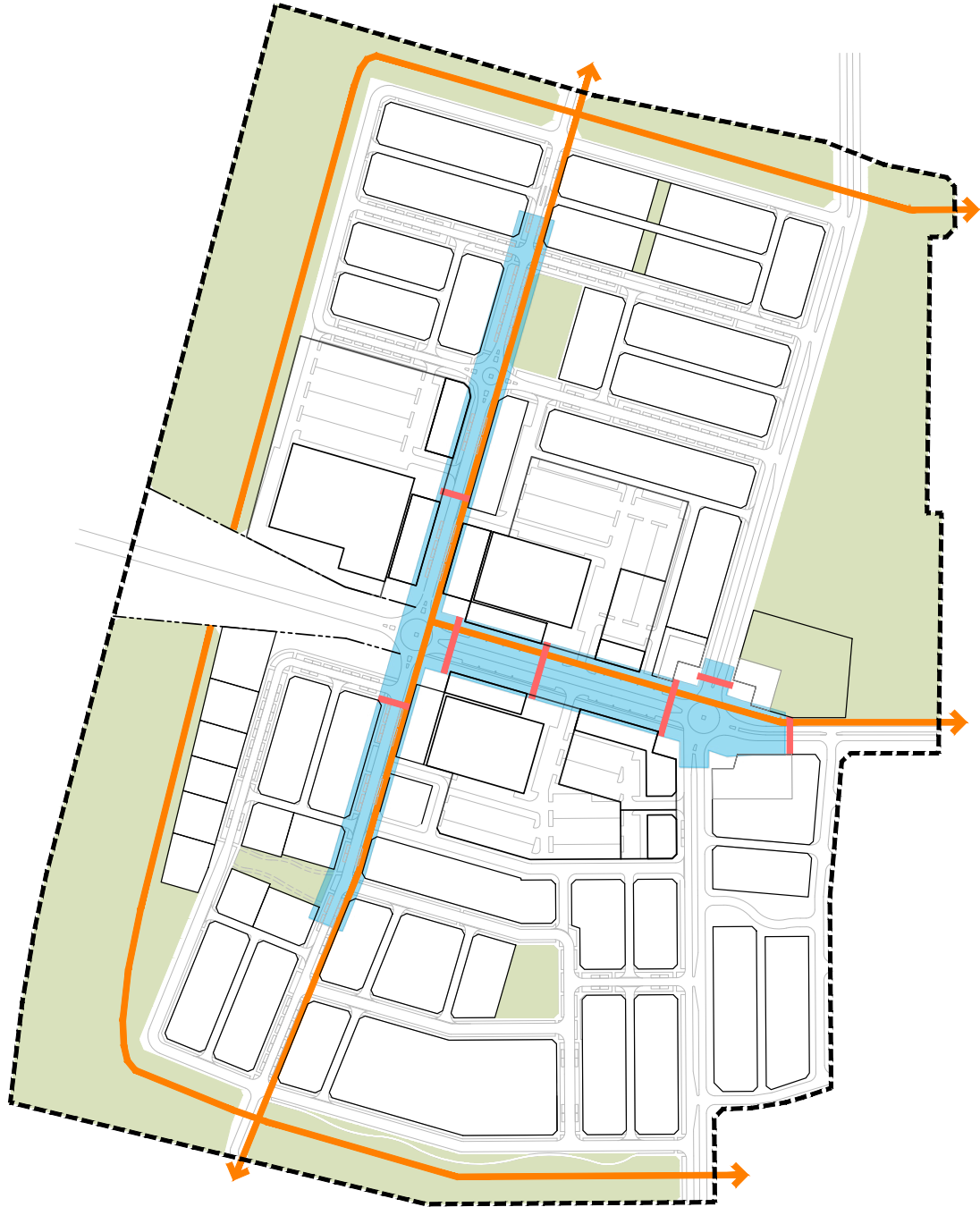


Plan 3: Street Typology Plan





Plan 4: Movement Network: Key Elements



LEGEND

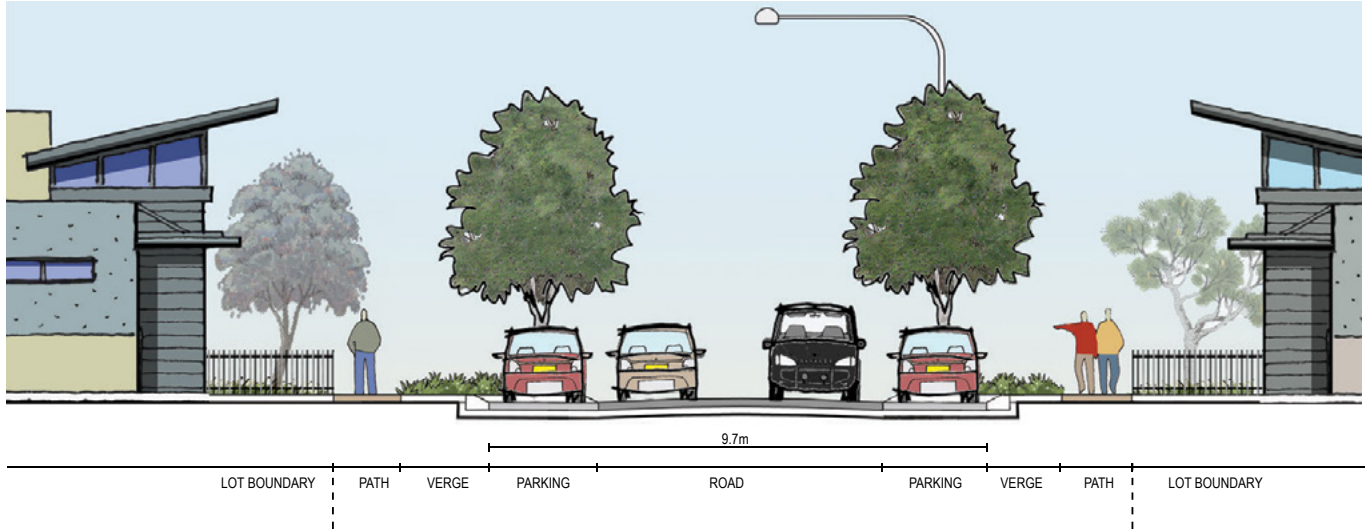
- 40 KPH ZONE
- PEDESTRIAN CROSSING POINTS
- PED & CYCLE MAJOR CONNECTIONS



Addendum: Street Sections

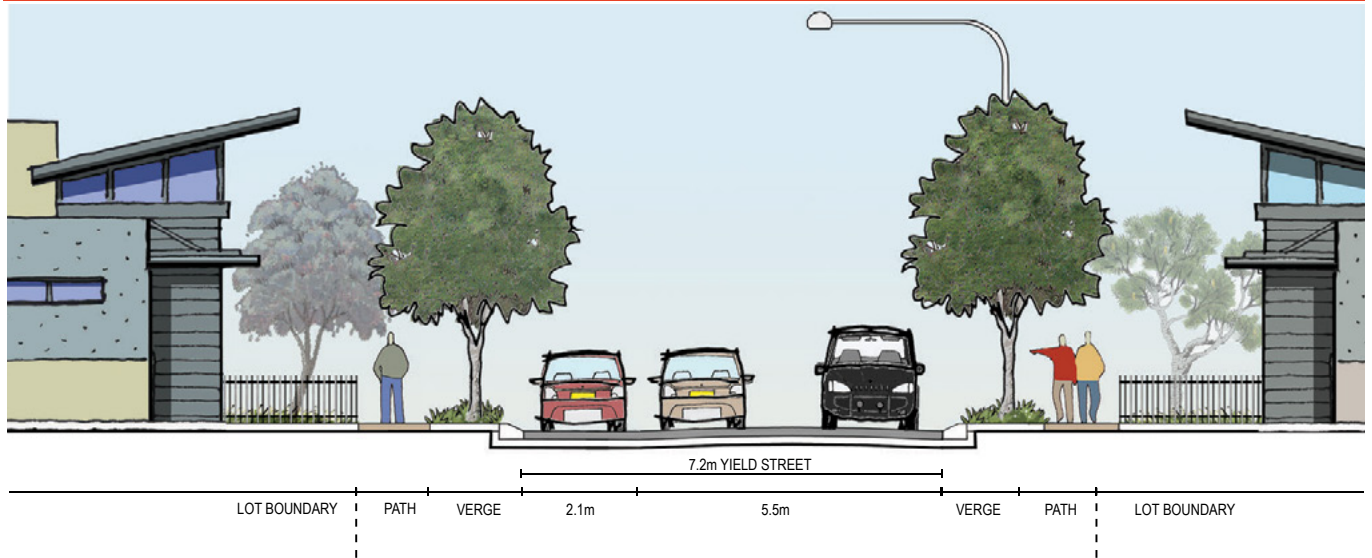
Sections for streets within the ACP area are outlined as follows.

Access Street B - Up to 17.9m Road Reserve



Note: As per Liveable Neighbourhoods, verge width adjacent to public open space may be reduced to 1.0 metres

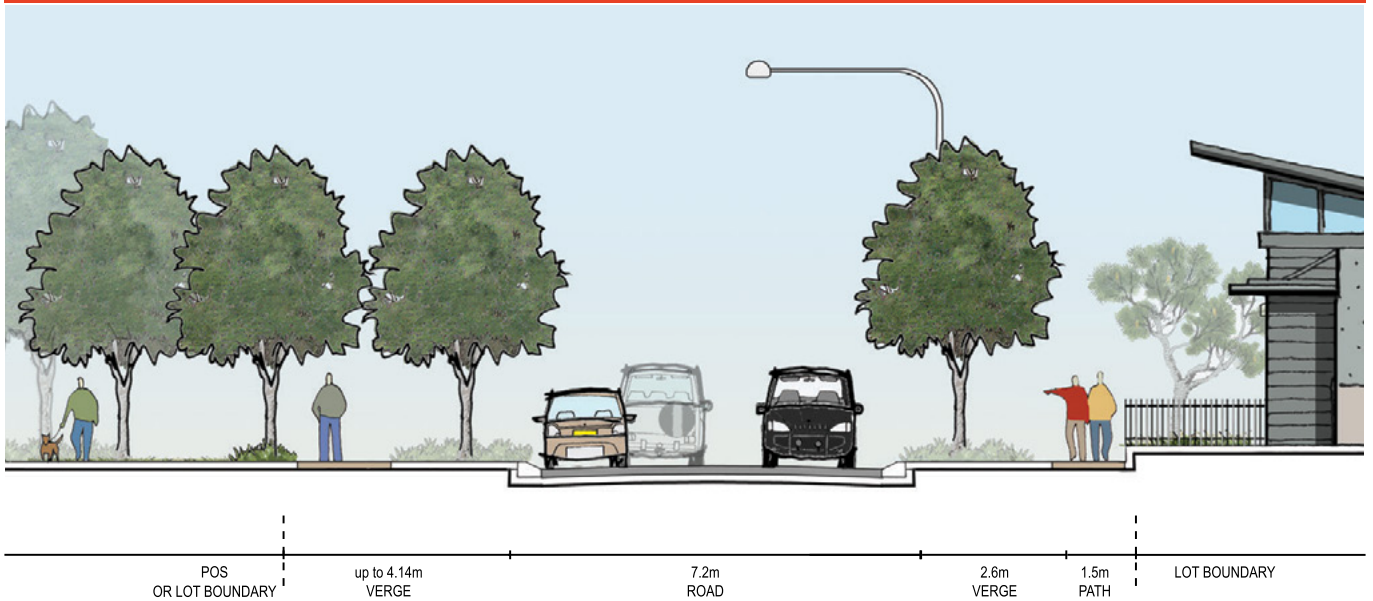
Access Street C - Up to 15.4m Road Reserve



Note: As per Liveable Neighbourhoods, verge width adjacent to public open space may be reduced to 1.0 metres

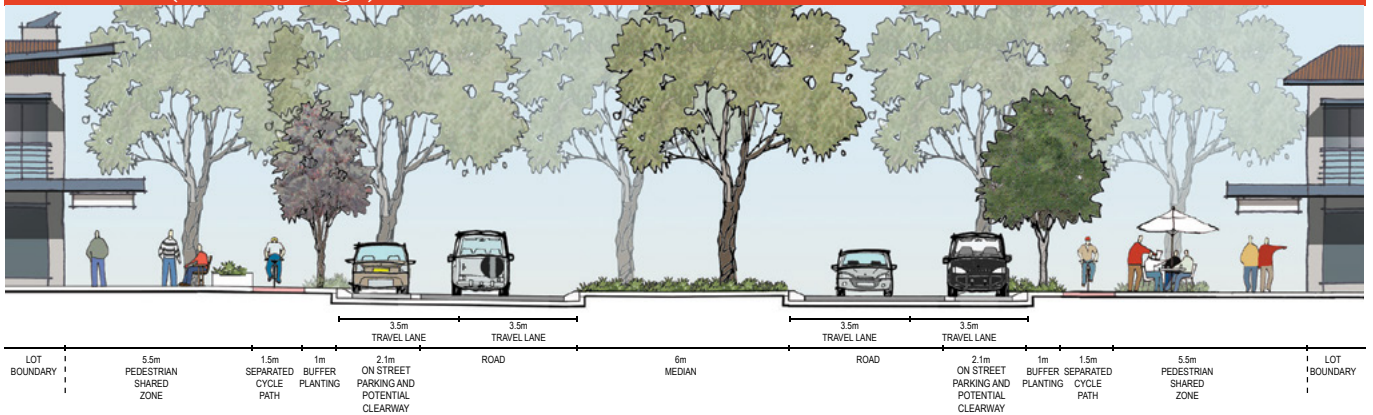


Access Street C (Yield) - Up to 15.44m Road Reserve



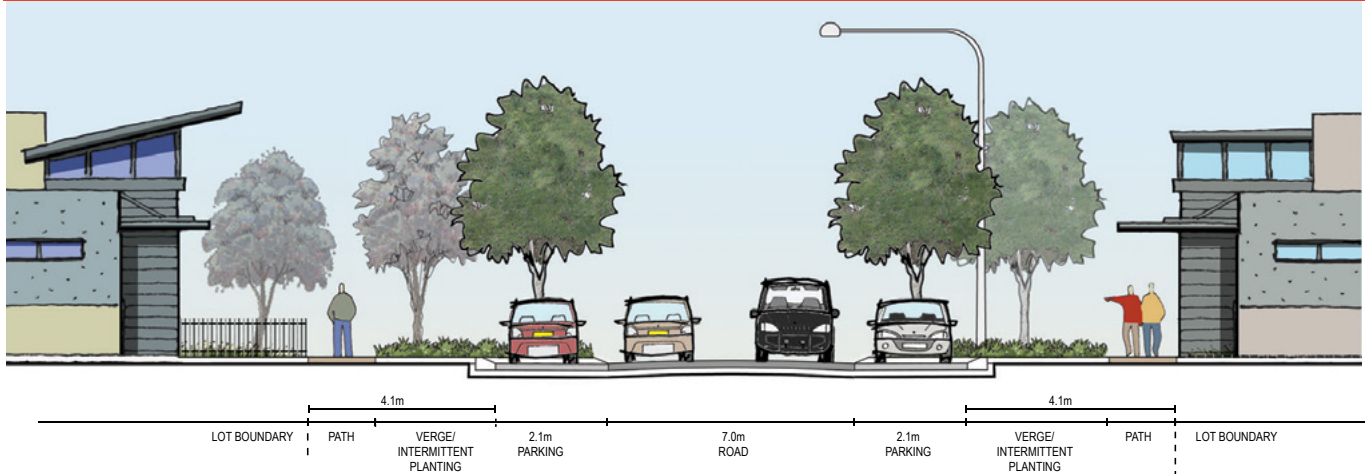
Note: As per Liveable Neighbourhoods, verge width adjacent to public open space may be reduced to 1.0 metres

Main Street (Interim Design) - 36m Road Reserve

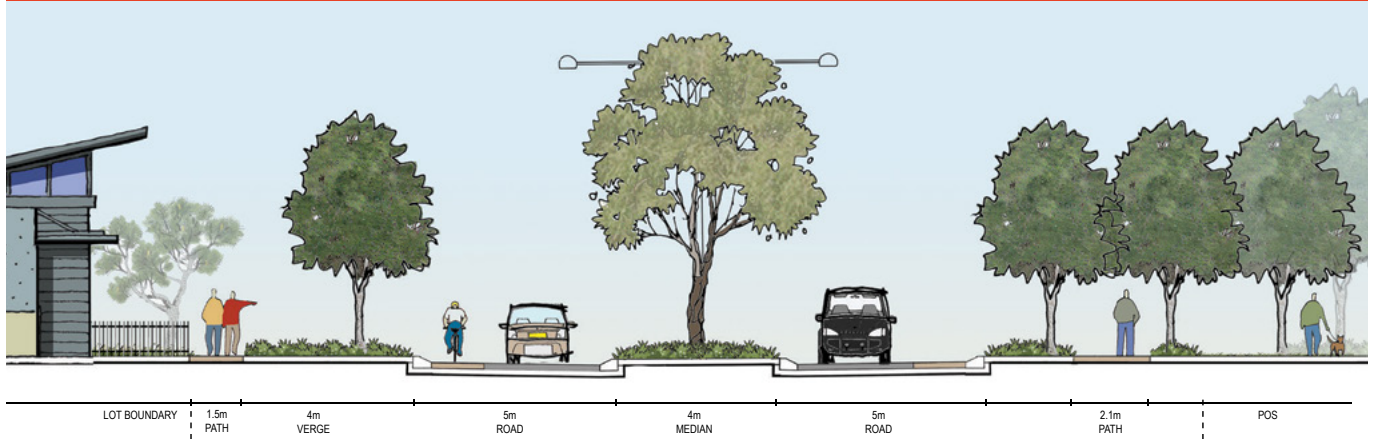




Neighbourhood Connector B - 19.4m Road Reserve



Neighbourhood Connector A - 25m Road Reserve







PART 2

EXPLANATORY SECTION

THE
FREEMASON'S
HOTEL
RESTAURANT



1.0 Introduction

1.1 Plan Purpose

This report constitutes an Agreed Activity Centre Plan for the Whitby District Centre, pursuant to the Shire of Serpentine-Jarrahdale Town Planning Scheme No. 2 (Scheme) requirements, and an Activity Centre Plan (ACP) pursuant to State Planning Policy No. 4.2 Activity Centres for Perth and Peel (SPP4.2).

The future Whitby activity centre will be the primary focus of the Mundijong-Whitby district, providing opportunity for local employment and economic activity, a strong focus for the local community (including a range of activities and facilities), connection to public transport, pedestrian and cycling networks, and a range of other opportunities. These components will be delivered in a curated centre with character, drawing on its history and setting, and appeal that puts people first. Together, these elements will combine to make a great place and source of pride for residents within the Mundijong-Whitby district and beyond.

Fundamentally, the purpose of this ACP is to facilitate the subdivision and development of the subject site. To this end, the ACP sets out the spatial plan, strategy and suite of public and private realm guidance to achieve a centre that is compact, pedestrian friendly, with a mix of land uses and a range of lifestyle choices, reflecting an intended “country town” character in keeping with the vision for Whitby.

1.2 Plan Context

1.2.1 Regional Context

The Whitby District Centre is located within the south-eastern sub-region of the Perth metropolitan area, approximately 48km from the Perth CBD and 14km south of Armadale strategic metropolitan centre. The corridor is among the fastest growing in Australia, and more locally (within the Shire of Serpentine-Jarrahdale) also includes Byford, about 6km north of the centre, and Cardup (a future service commercial and large format retail precinct) 2km north of the centre.

1.2.2 District Context

The centre forms part of the Mundijong-Whitby district cell, and has been identified as the major commercial focus for the cell. The centre is located to the north-east of the existing Mundijong townsite, north-west of the future Kiernan Park Sub-Regional Sport and Recreation Precinct, and east of the future multi-modal interchange and West Mundijong Industrial Area, all of which are within the district cell.

The centre’s ability to serve the district cell is dependent in part on effective connections to residential and other areas in the district cell. The rail line, which currently bisects the cell, is the main barrier to efficient connection at present.

1.2.3 Local Context

At a more local scale, the subject site is part of the Whitby estate, which is bound by South Western Highway to the east, Soldiers Road and the rail line to the west, Bush Forever site 361 and Norman Road to the north, and Manjedal Brook to the south. Within the estate the ACP area is generally bounded by the rail line to the west, proposed public open space to the north, north-east, west and south, and the extended Skyline Boulevard to the east and south-east (although some land lies to the east of Skyline Boulevard).



1.3 Land Details

The ACP area has a total land area of 40.1 ha. The site is currently vacant.

The ACP area includes portions of three freehold lots, and a small portion of Skyline Boulevard road reserve that has already been created. Lot details for the area covered by the ACP are as follows.

LOT NO	PLAN NO	TOTAL LOT AREA	REGISTERED PROPRIETOR
26	P226115	61.1075ha	Gold Fusion Pty Ltd
9005	P408136	11.4978ha	Gold Fusion Pty Ltd
9008	P413762	44.36ha	Gold Fusion Pty Ltd

Note: Lots 9005 and 9008 are balance of title lots from surrounding residential subdivision, and may be updated as additional residential lots are created.

Figure 1: Landholding /Cadastral



LEGEND

— Activity Centre Plan Boundary



1.4 Physical Attributes

The physical context of the site assists in understanding the site and its setting. This in turn gives guidance on an appropriate and site-specific response, leading to a distinctive and valued centre that is a source of local identity.

1.4.1 Biodiversity and Natural Areas

1.4.1.1 Flora and Vegetation

The majority of vegetation within the ACP area currently consists of regrowth from blue gum plantation farming over pasture grass, with some scattered paddock trees. A patch of native vegetation in degraded condition occurs in the east of the ACP, consisting *Allocasuarina fraseriana* (Sheoak) with *Eucalyptus marginata* (Marri), *Banksia attenuata* and *Xylomelum occidentale* (Western Woody Pear) over *Xanthorrhoea preissii* and *Xanthorrhoea gracilis* over *Tetraria octandra* and pasture grasses. A large portion of this patch is to be retained within public open space (POS), given it is identified as a Local Natural Area (LNA) in the Shire of Serpentine Jarrahdale's (the Shire) Local Biodiversity Strategy.

Bush Forever Site No. 350 is located west of the ACP, within the adjacent railway reserve, and supports conservation category wetlands (discussed below) as well as Threatened and Priority Flora species, and Threatened Ecological Communities.

1.4.1.2 Fauna and Fauna Habitat

Given the historic clearing for agricultural and plantation uses within the site, vegetation within the ACP area now generally consists of parkland cleared areas comprising pasture grasses, scattered paddock trees and blue gum plantation regrowth. Fauna habitat values are therefore limited, and restricted to the remaining paddock trees and an area of vegetation identified as an LNA in the east of the ACP, which will provide potential habitat values for a range of fauna species.

Vegetation associated with the Shire LNA could be retained within POS in the eastern portion of the ACP, and could continue to provide habitat for mobile fauna species utilising the site.

1.4.1.3 Wetlands

Two conservation category wetlands (CCWs) occur immediately west (outside) of the site, and will be permanently retained and protected. A 50 m wetland buffer has been denoted for each CCW, which encroaches into the ACP area.

1.4.2 Landform and Soils

1.4.2.1 Topography

The natural topography of the ACP area is generally sloping with a south-westerly aspect. The natural surface height ranges from 50 m Australian Height Datum (m AHD) in the east of the ACP to 39 m AHD in the south-western portion of the ACP area. The slope is generally consistent across the ACP area.

1.4.2.2 Soil and Landforms

Landform and soil mapping indicates that the site is located within the Forrestfield Unit, described as the laterised foothills of the Darling Scarp, dominated by gravelly and sandy soils.

The Perth Metropolitan Region 1: 50,000 Environmental Geology Series, Serpentine (Part Sheets 2033 I and 2133 IV indicates that the site is comprised of 'Clayey Sandy Silt' (Msc1), 'Gravelly Sandy Clay' (Csg) and 'Sandy Clay' (Cs).

A geotechnical investigation for the adjacent Precinct 3 development area found sand was encountered from 700 mm to greater than 3 m from the surface. Traces of clay were encountered from 800 mm below the surface at some locations.

1.4.2.3 Acid Sulfate Soils

Acid Sulfate Soil (ASS) risk mapping from the Department of Water and Environmental Regulation (DWER) indicates there is a 'moderate to low risk' of ASS occurring within 3 m of the soil surface across the majority of the ACP area, with an area of no known risk in the south-eastern portion of the site. The risk of ASS within the site can be appropriately managed through the standard subdivision approval, condition clearance and development process.



1.4.3 Groundwater and Surface Water

1.4.3.1 Groundwater

As outlined in the *Urban Water Management Plan: Whitby Estate Precinct 3 and Surrounds*, groundwater beneath the ACP area flows towards the west and south-west. Maximum groundwater levels range from approximately 46 m AHD in the north-east to 40 m AHD in the south-west. Depth to maximum groundwater level is close to the surface in the south-west corner up to 2 m below ground level in the north-eastern corner.

1.4.3.2 Surface Water

As outlined in the *Whitby Local Water Management Strategy*, surface runoff enters the ACP area along the eastern boundary via overland flow and within an existing streamline. This streamline becomes undefined and consequently, runoff from upstream catchments and within the ACP area are directed west via overland flow. Runoff discharges toward the west at two locations via culverts beneath the railway and Soldiers Road.

1.4.4 Bushfire Hazard

The ACP area will be subject to some long term bushfire risk posed by vegetation permanently retained west of the site and within POS within the eastern portion of the ACP. Buffers associated with areas of CCW west of the site extend into the ACP area. The ultimate treatment of these buffers can be determined as part of future detailed landscape design, however in order to present a conservative assessment of the potential long-term bushfire risk posed to the ACP at this stage, assumptions have been made around future landscape treatments and fuel loads within these areas. These assumptions are outlined in detail in the Bushfire Management Plan (BMP) prepared to support the ACP, and include:

- A minimum 10 m-wide managed strip of POS will be accommodated in the eastern portion of the linear POS corridor, at the interface with development.
- CCW buffers within the linear POS corridor will be revegetated to a scrub (Class D) classification (as classified under AS 3959).
- Remaining areas of the linear POS corridor (between the managed strip of POS and the CCW buffers) will be planted to a shrubland (Class C) classification (as classified under AS 3959).

Overall, the long-term bushfire risk posed to development from potential future fuel loads can be appropriately managed through the design and placement of managed POS and road reserves, as well as through future built form construction response.

In addition, remnant native vegetation associated with the Shire's LNA and identified for retention is proposed to be retained within POS in the east of the ACP. Specific landscape treatments can be designed in order to restrict the area of unmanaged, retained vegetation to a patch less than 1 ha in size, in order to manage the bushfire risk posed to development while retaining native vegetation values within the ACP. This can be achieved through the retention of overstorey trees with targeted landscaping and maintenance of understorey areas to achieve a managed state in accordance with AS 3959. By ensuring retained vegetation is sensitively managed, with fuel managed areas surrounding, the LNA will pose a low threat in accordance with exclusion (b) of AS 3959.

All other areas within and surrounding the ACP where vegetation may remain can be managed to a low threat standard as part of the staged development of the ACP and/or the implementation of surrounding development in line with the broader Whitby LSP. This is outlined further in the Bushfire Management Plan (BMP) prepared for the ACP.



1.5 Heritage and History

1.5.1 Indigenous Heritage Considerations

An online search for relevant Aboriginal heritage information was undertaken using the Department of Indigenous Affairs (DIA) Aboriginal Inquiry System that incorporates both the heritage site register and the heritage survey database.

The subject site contains no registered Aboriginal Heritage sites. Historically an ethnographic and archaeological survey was completed for the subject site, as a part of investigations for the South-East Corridor Structure Plan in 1995. This investigation was undertaken to support the urban development of the Mundijong and Byford areas and included consultation and field and desktop investigations, with the data collected considered as having good spatial accuracy.

1.5.2 Non-indigenous Heritage

In order to determine the actual or potential presence of places or features of non-indigenous heritage significance within the subject site, a review of readily available information at a federal, state and local government level was undertaken to determine if there were any of the following within the subject site:

- World Heritage List;
- National Heritage List;
- Commonwealth Heritage List;
- Register of the National Estate; and
- State Register of Heritage Places
- Sites listed in the Shire of Serpentine-Jarrahdale Municipal Heritage Inventory List

There were no listed heritage places within the subject site. One heritage site is listed nearby, to the south of the subject site, Whitby Falls Coach House.

1.5.3 History and Prior Uses

Historically the subject site, as part of the Whitby estate landholding, has been used for agricultural purposes, which includes sheep grazing, horse agistment and the production of plantation timber.

From the 1990's to 2013, a significant portion of the estate was converted to farm forestry blue gum plantations. This includes some land in the southern portion of the ACP area. Separate from the former plantation, to the immediate east of the ACP area, a small area of remnant vegetation identified in the Shire's draft Local Biodiversity Strategy and discussed in Part 2 Section 1.4.1.1 of this report.

The Department of Mines and Petroleum (DMP) and Geological Survey of Western Australia currently identify strategic titanium-zircon resource as occurring over the majority of the estate. The potential extraction of this resource was considered as a part of the lifting of the 'Urban Deferred' zoning. Extraction of the sands is not economically viable, and is subject of considerable community opposition, and was not included in WAPC's Statement of Planning Policy 2.4 Basic Raw Materials. Subsequently the deferral was lifted, enabling urban development.

Former Blue Gum Plantation





2.0 Context

2.1 Regional Context

As discussed in section 1.2, the subject site is located within the south-eastern metropolitan corridor of Perth, in the Shire of Serpentine-Jarrahdale (the Shire) approximately 48 kilometres south-east of the Perth central business district, as shown in Figure 2. The subject site is located to the north-east of the existing Mundijong townsite, and is located within the Mundijong-Whitby District Structure Plan area and Whitby Local Structure Plan area.

Within this context, the following sections outline the centre hierarchy and context surrounding Whitby, and generally in the south-eastern corridor, along with demographic and catchment analysis relevant to the future centre.

2.1.1 Activity Centre Hierarchy

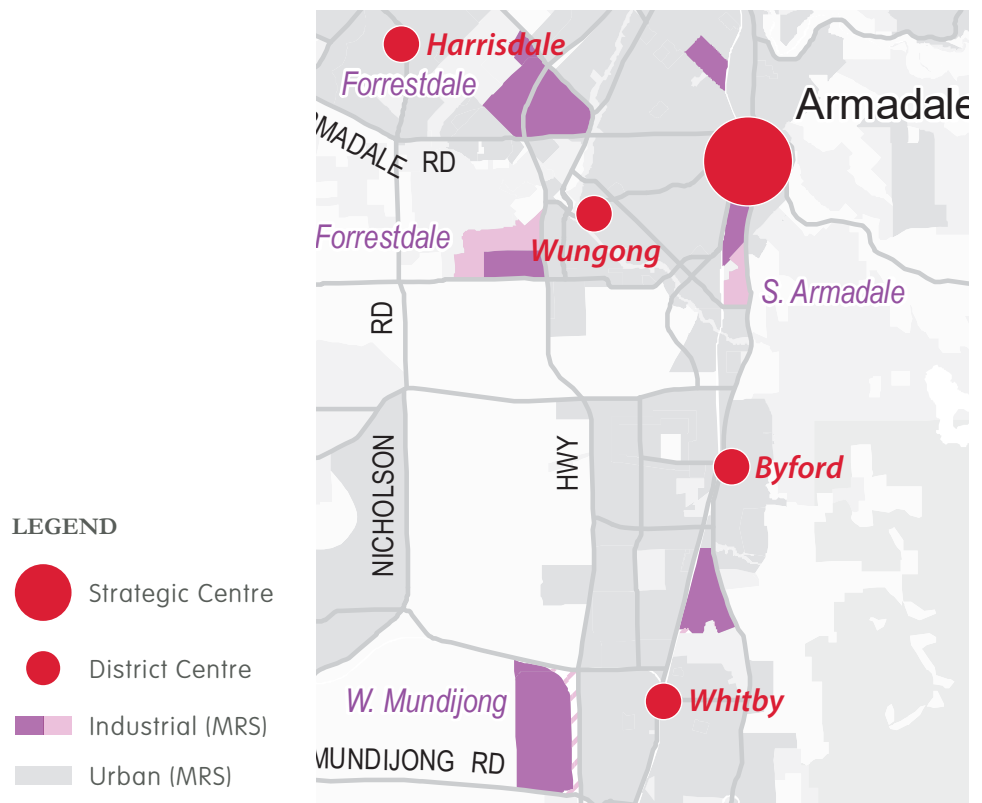
Whitby is designated as one of three district centres in the south-east corridor, along with Byford and Wungong, according to the Perth and Peel@3.5million sub-regional frameworks.

The Wungong district centre is currently being developed to cater for future residential development within Wungong urban development area in Hilbert and Haynes. The Byford District Centre (6km by road north of the subject site) is an expanding centre within central Byford. The centre currently performs a large neighbourhood centre role for residents in Byford, Whitby and Mundijong, and will grow with its catchment.

There are no higher order secondary centres planned within the corridor. As such, the Armadale Strategic Metropolitan Centre caters to regional services and more infrequent shopping trips.

There are several higher order centres to the west of Mundijong, closer to the Kwinana Freeway, including: Kwinana Secondary Centre (20km by road from subject site); Aubin Grove District Centre (25km by road); and Cockburn Secondary Centre (29km by road).

Figure 2: Activity Centre Hierarchy





Lower Order Centres

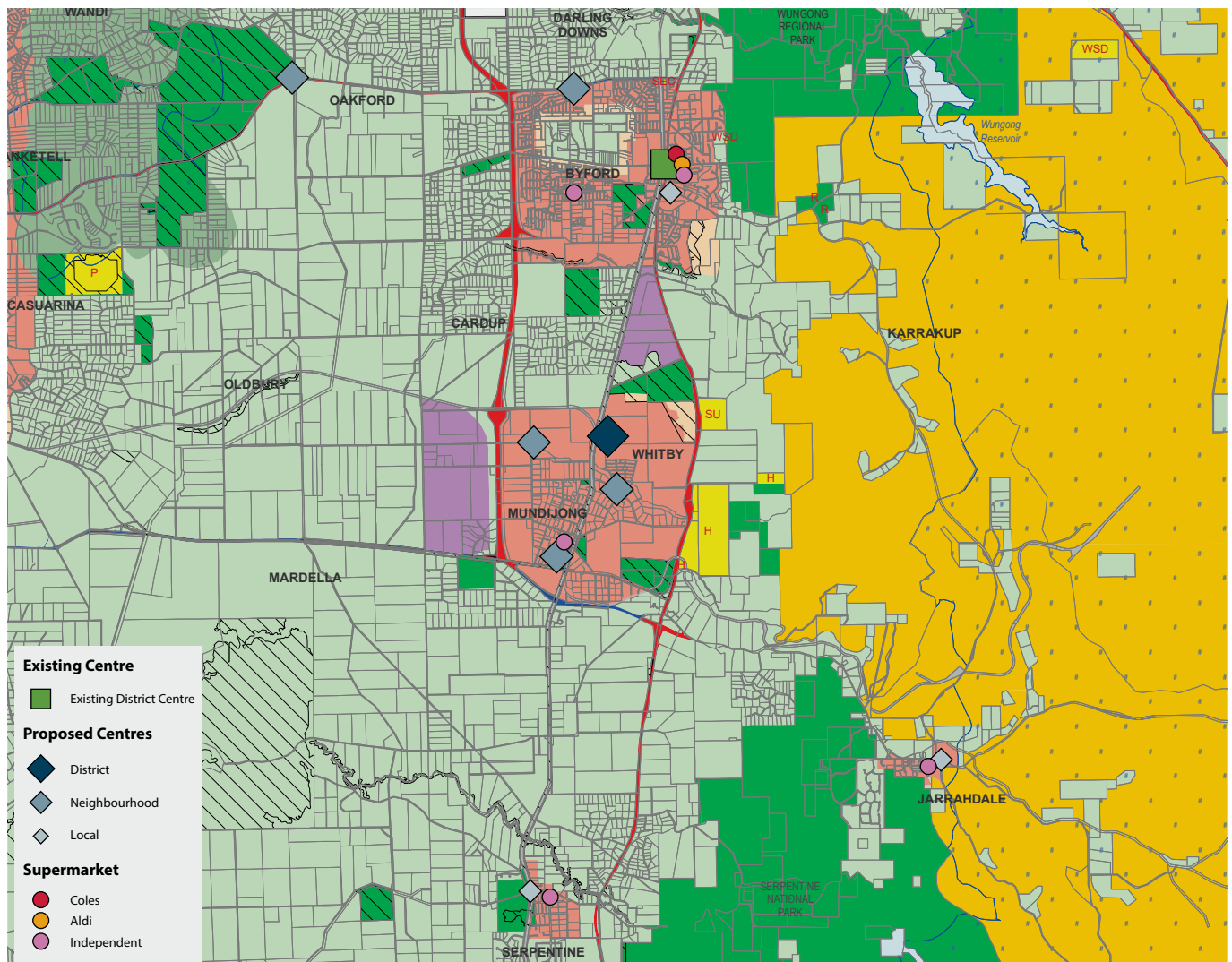
The Shire of Serpentine-Jarrahdale developed an activity centres strategy in 2012 which identified a number of proposed local and neighbourhood centres that will complement the offering within the proposed Whitby District Centre.

Within Mundijong, the existing town centre features an IGA and several specialty tenancies and is proposed as a neighbourhood centre under the existing DSP. It is planned to accommodate approximately 4,500sqm of retail floorspace and retain civic uses, with limited further expansion planned. Additional neighbourhood centres are planned to be accommodated within the northwest and southeast of Mundijong. These centres are expected to accommodate small supermarkets (circa 1,500sqm) and 10-15 specialty stores (a total floorspace of 2,500sqm each).

The DSP identifies provisional land use estimates, as well as a general staging strategy for the District Centre.

STAGE	EXPECTED MIX
Stage One	Single supermarket (3,500sqm) and 15 specialty shops (1,500sqm)
Stage Two	Second supermarket (3,500sqm) and 25 specialty shops (2,500sqm)
Stage Three	Discount Department Store (DDS) and 15 specialty shops (1,500sqm)

Figure 3: Lower Order Centres





2.1.2 Defined Catchment for Centre

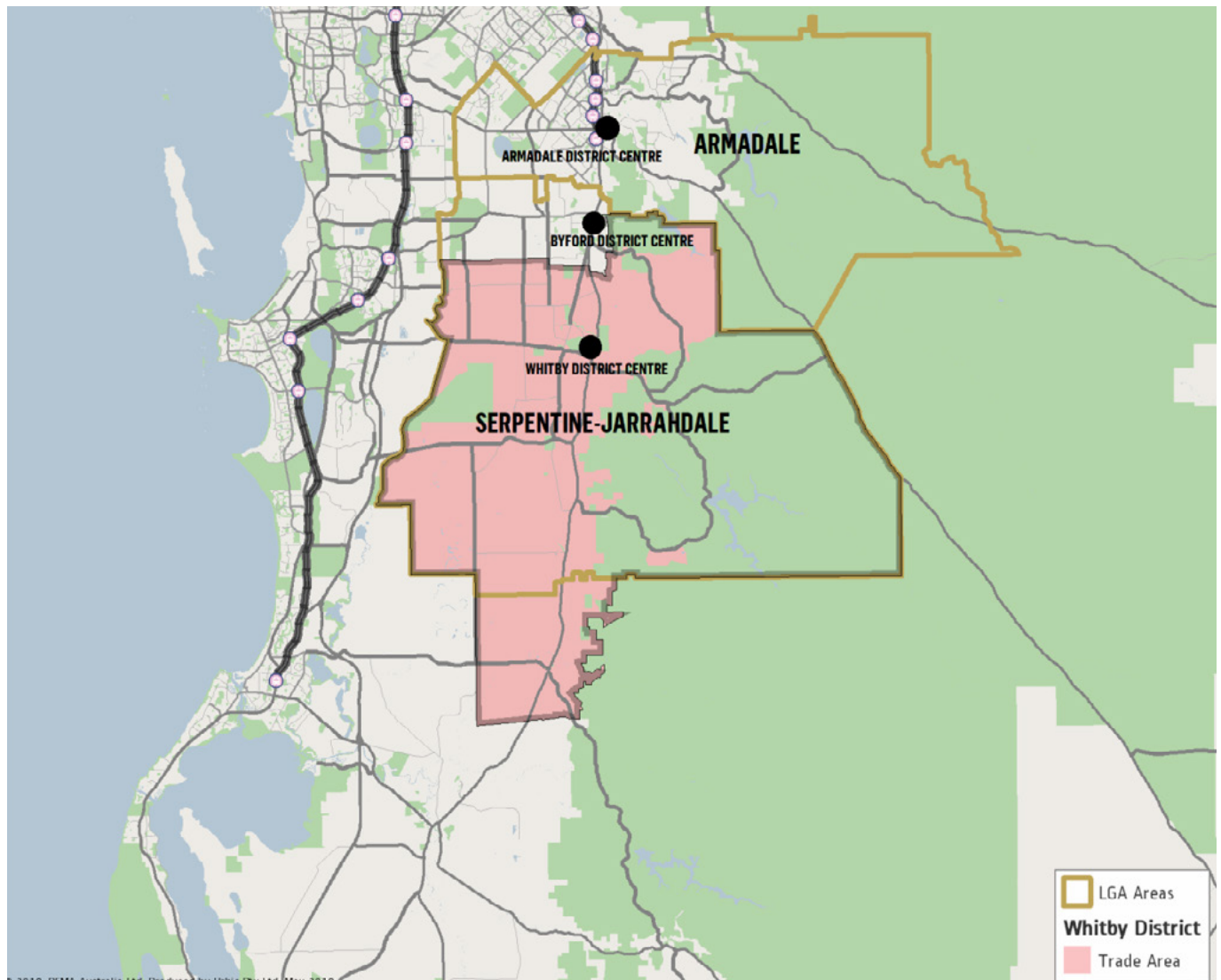
An indicative trade area for the Whitby District Centre has been identified based on expected future supply, land use mix and role, accessibility and urban development assumptions. The key assumptions are noted below.

- The centre will be highly accessible to residents of the district cell, with access via Soldiers Road and the future east-west connection.
- No future unplanned urban development areas and / or retail developments are assumed.
- The district centre will initially perform a mainly convenience daily and weekly shopping role and then a broader discretionary role.

The trade area is expected to extend south to include the established rural residential areas and townships of Serpentine and Jarrahdale. The Byford township is not expected to form part of the main trade area given the expected retail provision available within the Byford Town Centre and Cardup Business Park. However, it is important to note that the site is expected to also generate 'tertiary trade' due to worker and visitor movements past the site and this will likely include residents in Byford.

The trade area is based on Australian Bureau of Statistics 'Statistical Area Level 1' boundaries which are the smallest areas for which statistical data required for a retail analysis is provided and represent the most detailed and accurate method in explaining the retail market within a small area.

Figure 4: Whitby Centre Catchment



© 2019, PSMA Australia Ltd. Produced by Urbic Pty Ltd. May 2019

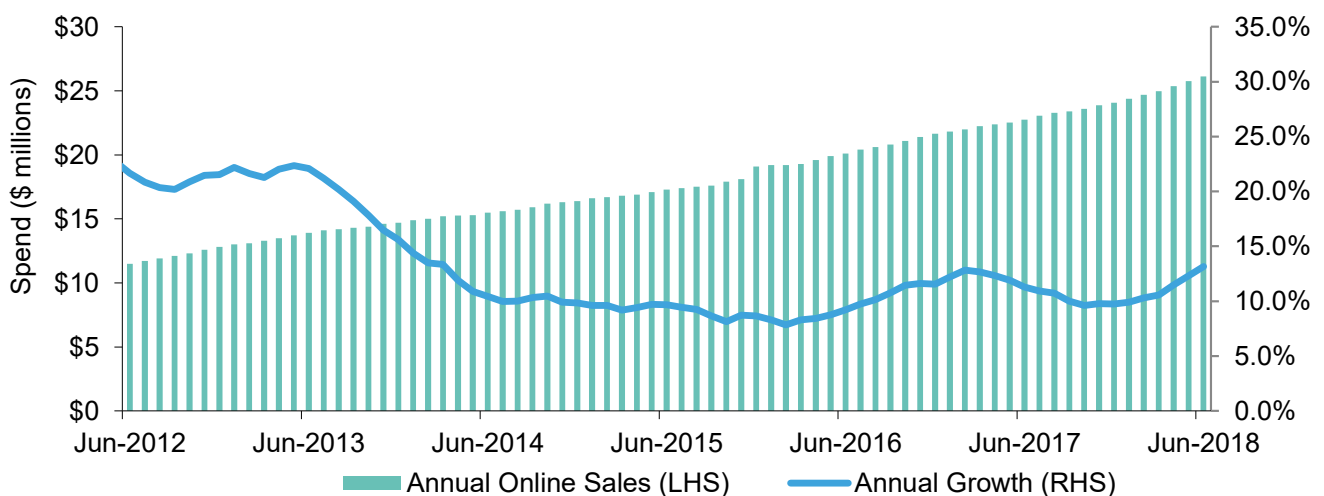


2.1.3 Retail and Centre Trends

Notwithstanding planning projections for the centre, such as in the DSP, it is important to note that the retail market is not immune to structural changes that are occurring in the economy and society. The retail sector in Australia is being tested by numerous factors summarised below, which may have implications for the centre.

- *Online retail will become more convenient and ubiquitous* through streamlining of browsing, transaction and fulfilment aspects. This, along with the growth in mobile platforms, will mean that online retail becomes increasingly flexible and accessible, allowing customers to shop 'anytime, anywhere'.
- *Physical retail will begin to take on more characteristics of a service.* With online retail channels offering more seamless transactions and more convenient fulfilment, physical retail will offer more in terms of in-store experience, and customer service to create a point of difference, or complimentary experience. Stores will become more like experiences, allowing customers to view and try products, and ask questions of staff.
- *Ongoing development of new user marketplaces* to facilitate exchanges between one another rather than through businesses, supported by technologies such as blockchain, can support the development of a secure record of ownership. This will go beyond eBay style services and extend into new areas, such as energy sharing in microgrids.
- *Retail is declining as a share of household consumption.* Increased spending on non-retail categories, such as education, healthcare and utilities, is diverting household spending from retail goods. This is exacerbated by deflation in non-food retail goods, driven by increased trade and retail competition.
- *Out-of-centre retailers are adopting smaller floorplate and pop-up mediums* within activity centres and complementing these with large experiential offerings and fulfillment centres.
- *Customers are demanding a seamless experience* and self-service options for 24/7 'just in time' consumption options. This will see the ongoing development of self-service opportunities in stores, which may support longer retail hours due to reduced labour costs and the ongoing development of delivery platforms (e.g. after-hours delivery services and/or drones).
- *Food retail as a portion of spending has been increasing,* as well as food catering (dining and fast food). The spending categories that have seen substantial declines are household goods, clothing and accessories and department stores.

Figure 5: Online Spending, Australia, 2012-18



YOY Moving Average ; excludes spending on cafés, restaurants and takeaway food; methodology change adopted in December 2015
Source: NAB



2.2 Local Context and Surrounding Land Uses

A high-level introduction to the context of the centre is provided in Part 2 Section 1.2. The ACP area forms part of the Whitby estate, which is planned to include 4000 dwellings and a population of 11,000.

Beyond the estate to the north, land is reserved for 'Parks and Recreation' and zoned 'Rural' and 'Industrial' under the MRS, and is currently utilised for a variety of purposes including conservation (such as Bush Forever site 361, adjacent to Norman Road), agriculture, timber treatment and prefabricated cement production. The land is identified as the future Cardup industrial area.

Directly adjacent to the west of the subject site is the Perth to Bunbury rail line on which passenger and freight trains travel between Bunbury and Perth. This is a significant constraint to the efficient east-west movement within the Mundijong-Whitby DSP. The potential noise impacts of the rail line have been considered in the context of the State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning (SPP5.4), and an acoustic assessment has been undertaken to determine the potential noise impacts on surrounding land uses and potential mitigation measures, if required. Further west of the rail line the land comprises rural farmland which is zoned for urban development and is also subject to the DSP.

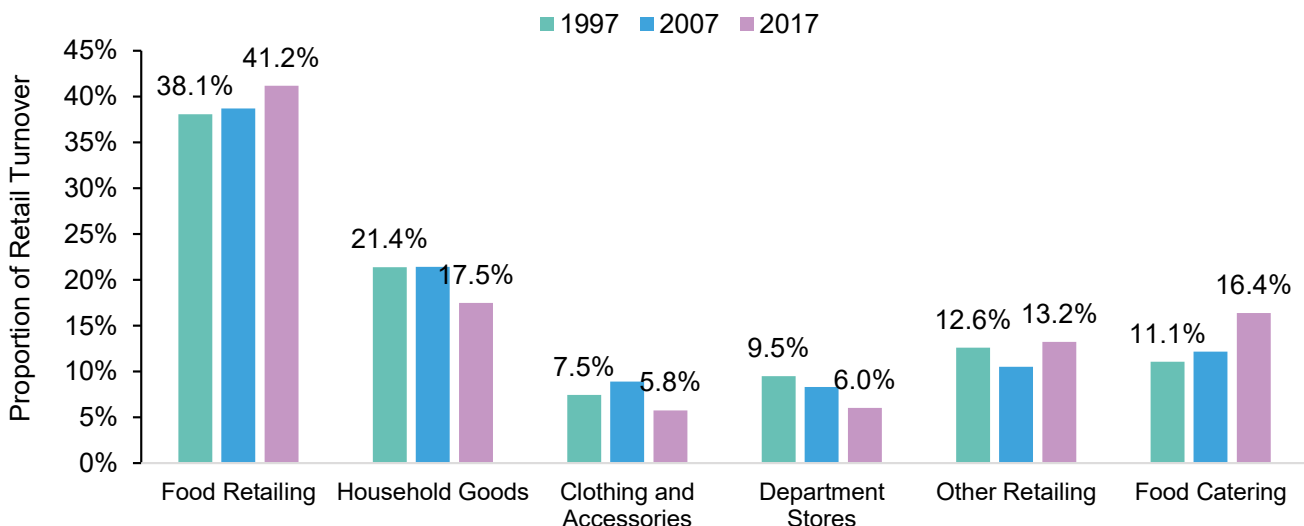
To the east of the Whitby estate is the South Western Highway, which regularly carries a range of vehicles including buses and trucks between Perth and the south-west. Land east of South West Highway includes the South Cardup Landfill, Hanson's Hard Rock Quarry, WA Blue Metal Hard Rock Quarry and a motor-cross track, and land reserved for public purposes (a hospital use).

Guidance for the Assessment of Environmental Factors Separation Distances between Industrial and Sensitive Land Uses No. 3 provides recommended generic separation distances between sensitive land uses (such as residential development, schools, hospitals, and motels) and a number of different industrial land uses, in order to avoid potential conflicts between these land uses. These separation distances tend to be conservative, in order to accommodate variability between areas and the intensity of land uses.

The retention of Bush Forever Site 354 within the Local Structure Plan and the location of larger lots along the eastern boundary of the subject site have adequately accommodated the required and recommended separation distances for these land uses. None of these impact on the ACP area.

Manjedal Brook, which forms the southern boundary of the estate, lies south of the ACP area. Further south, on the opposite side of Manjedal Brook is an existing rural residential area forming Precinct B of the DSP and to the west is existing rural land forming Precinct G of the DSP.

Figure 6: Retail Turnover Shares by Category, WA





2.2.1 Catchment Demographics and Growth

The current trade area was found to have a relatively older population compared to Greater Perth however this reflects the relatively high proportion of residents in the established township of Mundijong and nearby rural and rural residential areas.

A more accurate representation of future trade area demographics is likely to be similar to other outer urban growth areas such as Byford. That is, the future trade area population is likely to be younger and more ethnically diverse than the current trade area profile. Income levels – the key driver of spending patterns – however are expected to be similar to patterns currently observed.

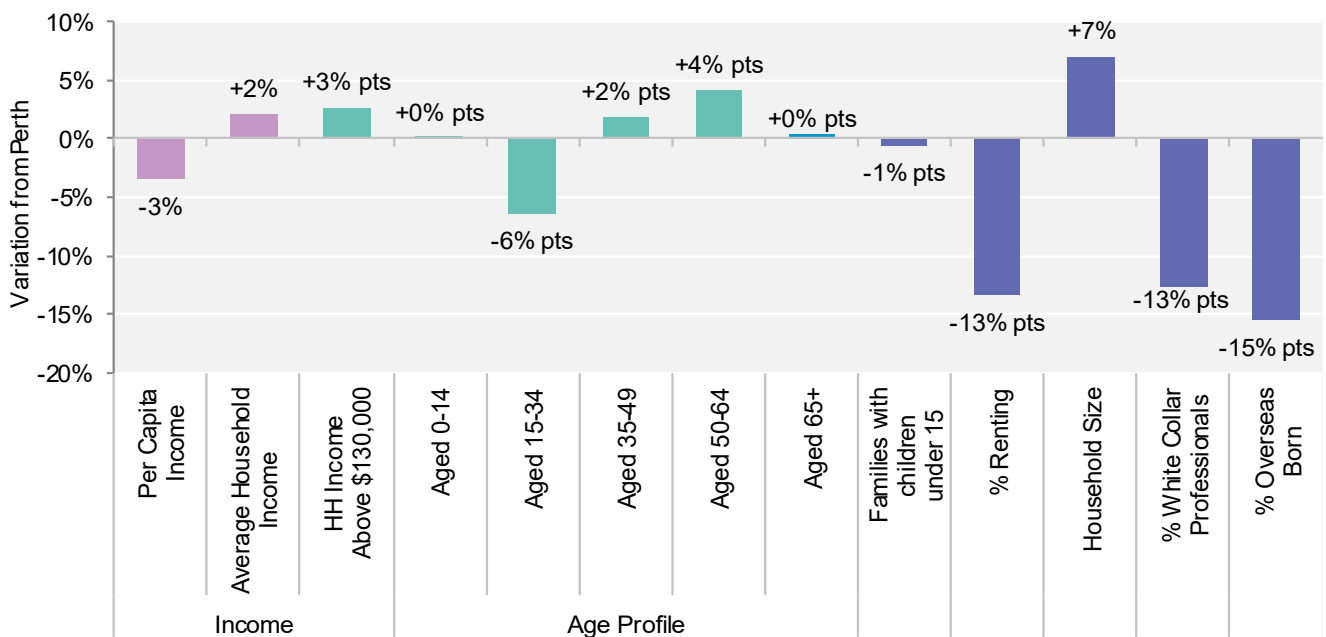
The trade area population is expected to grow relatively quickly over the next 25 years, increasing from 8,600 to 40,250 residents.

The population projections for the trade area are premised on an increase in residential development activity from 2021 onwards. The large increase in development activity from 2031 onwards reflects the expected exhaustion of supply within Byford.

An indicative ‘build-out’ population estimate of 60,000 residents was assumed. This estimate is based on the expected capacity of urban zoned land and development investigation areas noted in the sub-regional frameworks.

The development of the centre is predicated on development of the trade catchment, specifically its population, rather than time elapsed. Accordingly, references to future development and growth of the centre is referenced in these terms throughout the ACP.

Figure 7: Demographic & Socio-Economic Characteristics, Trade Area, 2016



Source: ABS; Urbis



2.2.2 Existing Uses and Services

As the ACP area is currently vacant, this section, focusing on uses and services, considers those uses and services with a physical presence in the vicinity of the ACP area. This is relevant as it considers those uses that currently serve the catchment of the future Whitby district centre.

2.2.2.1 Existing and Emerging Commercial

Byford District Centre

The Byford Town Centre Structure Plan was finalised in 2015 and includes uses within the existing town centre and undeveloped and recently developed land holdings to the west of the railway line. The Byford District Centre currently functions as a convenience neighbourhood centre. A Coles supermarket-anchored centre opened in 2016. Adjacent to Coles, an Aldi opened in early 2018.

Whilst there are challenges related to land fragmentation in the Byford District Centre, the expansion area to the west of the railway line is primarily held by several major land owners. Based on the findings of retail analysis, the Shire's objectives for the town centre and the provisions of State Government policy, the Byford Town Centre Structure Plan determined that the retail floorspace allocation will likely accommodate the following:

- two full-line supermarkets;
- one limited-line supermarket; and
- smaller specialty comparison retail stores.

Retail uses are planned to be supported by medical suites, showrooms, drive through businesses, civic and community uses, child care facilities, leisure and entertainment uses and residential development. Overall, the retail analysis informing the structure plan noted that the centre will likely support between 9,000 and 15,500 square metres of retail floorspace (NLA) by 2031.

Table 1: Existing Floorspace Provision, Byford DC

LAND USE	2008	2015	2018
Shop Retail	2,546	3,924	11,506
Other Retail	968	968	1,358
Shopfront Office	2,166	3,298	3,298
Health and Community Services	45	275	275
Other	2,010	3,037	3,037
Total	7,735	11,502	19,474

Source: Urbis, DPLH Land Use and Employment Survey

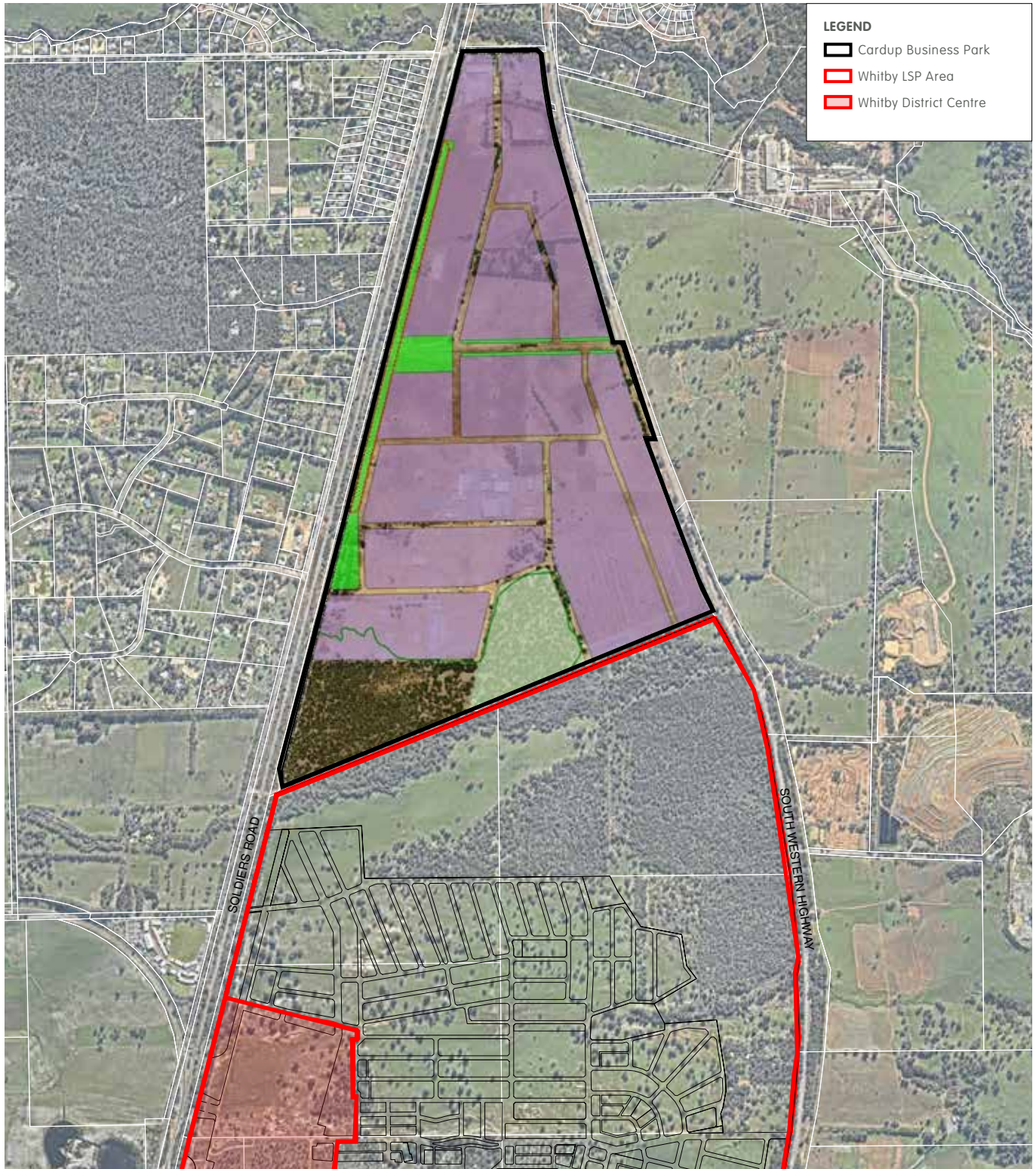


Cardup Business Park

The 194 hectare Cardup Business Park is expected to accommodate a range of industrial, warehouse, workshop, service commercial and large format retail uses. The business park is located between Soldiers Road and South Western Highway, less than 2km north of the proposed Whitby District Centre.

Notably, the business park is likely to compete with the Whitby town centre for the attraction of large format retail uses that may otherwise be accommodated within the Whitby District Centre.

Figure 8: Cardup Business Park & Whitby





2.2.2.2 Retail Needs Assessment

Total Floorspace Demand

The total floorspace activity centre floorspace demand in the trade area is expected to increase significantly over the coming 50 years based on current provision benchmarks.

This table represents the total amount of non-residential floorspace that the trade area residents can support. However, this demand will not be met entirely from centres within the trade area. Consumers travel across cities and regions to different retail centres for different reasons, including convenience, size and extent of offering and built form quality. A large degree of the office and health floorspace meanwhile will be met by regionally significant hospital and health precincts and commercial office precincts within higher order centres.

Table 2: Total Floorspace Demand

METRIC & LAND USE	2016	2026	2041	BUILD-OUT
Projected Population	8,593	12,716	40,250	60,000
Projected Dwellings	3,183	4,710	14,907	22,222
Shop Retail	12,000	17,800	56,300	83,900
Other Retail	2,400	3,600	11,300	16,900
Office	7,500	11,200	35,400	52,700
Health / Community Services	3,200	4,800	15,000	22,400
Other Non-Residential Floorspace	12,800	19,000	60,100	89,700
TOTAL	37,900	56,400	178,100	265,600

Centre Potential

There is an estimated market potential for development between 20,000 and 31,000 square metres of retail and commercial uses within the Whitby District Centre. The higher development outcome is based on the inclusion of a DDS anchor. In the absence of a DDS, the level of specialty retail is expected to be lower. This will result in a compound reduction of retail floorspace.

Shop retail potential was assessed with consideration given to:

- The market potential and development timing of major tenants, in particular supermarket and DDS offerings;
- Benchmarks in terms of the provision of mini-majors and specialty shops in supermarket and DDS anchored centres;
- The layout of the centre and the opportunity for cross shopping between uses; and
- Spin-off benefits from other uses and non-retail facilities.

At present, in outer suburban markets, DDSs typically require a main trade area with at least 35,000 residents. In the case of the Whitby District Centre, the threshold may be larger given the potential for the Byford District Centre to accommodate a DDS in the medium term (prior to sufficient population levels in Mundijong). Based on the expected population outlook, a DDS is not considered likely to be viable in the Whitby District Centre until the catchment population is at least 40,000.



A full-line supermarket will generally endeavour to trade with turnover of at least \$30 million and this would generally require a trade area population of more than 15,000 residents. The timing of a full-line supermarket for the Whitby District Centre will be dependent on development decisions in Byford though indicatively a full-line supermarket could be considered viable at the Whitby District Centre with a catchment population of 12,700.

In the case of a single DDS anchored centre with multiple supermarkets, the provision of specialty shops typically ranged between 4,000 and 6,000sqm. The provision of mini-majors varied between 1,000 and 3,000sqm. Pad sites (single tenanted buildings within a shopping precinct) and other external retail uses varied between 2,000 and 6,000sqm.

A multiple supermarket anchored centre typically accommodates a lower level of specialty retail (3,000 to 5,000sqm), mini-majors (less than 1,000sqm) and pad sites and external retail uses (500 to 1,500sqm).

Recognising the potential for good performing supermarkets and a moderate performing DDS in the long term, a moderately lower provision of shop retail uses is recommended and should be planned for.

Table 3: Supportable Floorspace at Whitby (Build-Out)

TENANT / CATEGORY	ONE DDS AND MULTIPLE SUPERMARKET CENTRE	MULTIPLE SUPERMARKET CENTRE
Discount Department Store	6,500sqm	-
Supermarkets	9,500sqm	9,500sqm
Mini-Majors and Specialty Shops	6,000sqm	4,500sqm
Other Shopfront Uses and Pad Sites	4,000sqm	1,000sqm
Large Format Showrooms	-	-
Non-Retail Uses	5,000sqm	5,000sqm
TOTAL FLOORSPACE	31,000sqm	20,000sqm

N.B. Floorspace refers to NLA. Land area requirements allow for building area of retail uses.

Recognising the timing of the retail uses and surrounding residential development in Whitby, in addition to the development of Cardup Business Park, provision for a significant large format anchor is not recommended. The earlier provision of residential uses is considered a preferred outcome.

Staging

There are a number of similarities to the growth patterns of district centres (and larger regional centres) in Perth. For the most part, these centres initially function as single supermarket-anchored centres until there is sufficient capacity to accommodate an additional full-line supermarket and DDS.

Based on the modelled floorspace demand, the likely first stage of retail development is expected to include a full-line supermarket offering, once the catchment population reaches approximately 12,700. Limited ancillary medical, childcare and specialty retail offerings are expected to support this initial stage of development.

Further expansion post-2041 will be dependent on the market need for a DDS within the Whitby District Centre.



Employment

The total employment that would likely be supported at the district centre has been estimated, given the recommended floorspace mix developed in the centre potential section of the report. The floorspace to employment ratios are based on the Perth Land Use and Employment Survey, which observes the total floorspace and employment across the Greater Perth area. The floorspace numbers specify the potential total employment, and includes both part time and full-time jobs.

Table 4: Projected Employment against Catchment Growth

PROJECTED DWELLINGS IN CATCHMENT	4,710	14,907	BUILD-OUT
Shop Retail	233	502	789
Other Retail	6	12	49
Office	0	23	23
Health and Community Services	8	20	20
Other Non-Residential Floorspace	31	101	101
TOTAL	278	658	981

Source: Urbis

2.2.2.3 Existing Community Facilities and Services

As a planned centre, no community facilities currently exist in the centre. However the catchment for the future centre is already served by public open spaces, and other community facilities (such as schools and sporting pavilions) are proposed in the Whitby LSP and other structure plans within the catchment.

At present other community facilities and services (especially at local government level) are provided from the Mundijong townsite, and other existing community facilities nearby within the Shire of Serpentine-Jarrahdale.



2.2.3 Movement Network

The existing network in Whitby and surrounds comprises Soldiers Road (west of rail), Norman Road (north), Keirnan Street (south) and South Western Highway (east). Some streets internal to the Whitby estate have been constructed supporting the early phases of subdivision. A two-lane, median-divided street, Skyline Boulevard, has been constructed connecting new development southwards to Keirnan Street, and onwards to the Mundijong townsite.

It is anticipated that the Whitby ACP will connect to the surrounding network via extension northwards of Skyline Boulevard and delivery of the main street proposed in the approved LSP, between the rail and South Western Highway. In time, subject to agreement with the Shire and Department of Planning, Lands and Heritage, this Connector will span the rail line forming a link to Taylor Road to the west and eventually, the Tonkin Highway extension from Thomas Road to Mundijong Road.

This proposed 'Other Regional Road' connection between Tonkin Highway and South Western is shown in the Sub-Regional Planning Framework; however, it is yet to be reserved in the Metropolitan Region Scheme. The Shire and Department have yet to resolve whether the Connector will intersect also with Soldiers Road. This is subject to separate, ongoing studies.

The approved Whitby LSP shows this road functioning as a neighbourhood connector. Based on consultation with the Department it is understood that it will now be classified as an Integrator Arterial.

A number of other changes are proposed to strategic roads around and adjacent to Whitby compared to the approved Whitby LSP. In particular, the Shire now supports one rail crossing (compared to two, previously), and direct connection to Norman Road and Cardup (without necessitating use of South Western Highway), as depicted on the LSP, may be difficult to achieve. The Shire remains supportive of two road connections eastwards to South Western Highway following road safety auditing and previous in-principle support from Main Roads WA.

Both the Shire and Department of Planning, Lands and Heritage have commissioned recent or ongoing network studies by other consultants. The findings of these studies and their implications for Whitby remain unclear, however can be addressed further during the amendment of the ACP.

2.2.3.1 Pedestrian and Cycling

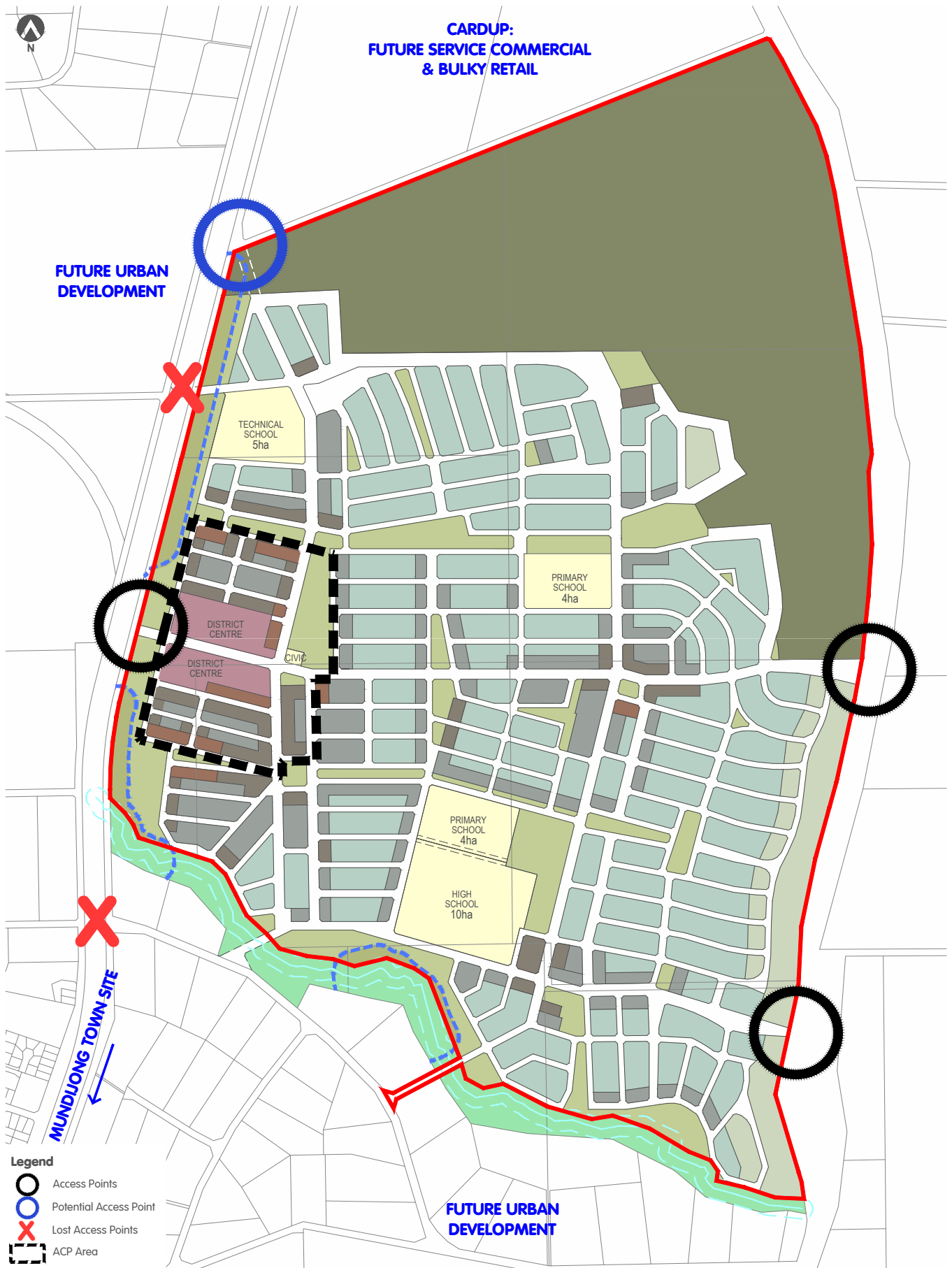
There is limited existing active transport infrastructure in proximity to the ACP area. Early subdivisions in Whitby, occurring to the south of the centre, feature some path and on-street cycling infrastructure. The centre will connect into this infrastructure in time, as development unfolds. In particular, Skyline Boulevard, to the south, features on-street cycle lanes. These lanes will be maintained on the boulevard as Skyline Boulevard extends northwards.

There is a red asphalt shared path on the east side of Paterson Street and Soldiers Road to the west of the rail line, which extends between Richardson Street to the south in Mundijong (connecting into other path infrastructure) and the freight rail line crossing south of Bishop Road. A connection to this path from the Whitby ACP is unlikely to be provided until the proposed main street is constructed as a grade-separated rail crossing.

Other existing roads in the general vicinity, including Norman Road and Kiernan Street are rural standard lacking any paths.



Figure 9: Transport Context Plan (overlaid on Illustrative Local Structure Plan)





2.2.3.2 Public Transport Movement Network

Freight and passenger rail services operate on the existing rail line abutting the Whitby LSP area. Freight services are likely to continue to operate on this line until the construction of a new freight rail alignment along the future Tonkin Highway (shown in the Sub-Regional Planning Framework for investigation post-2031). The alternative alignment would deviate freight trains westwards from Mundijong Road. Given the post-2031 timeframe and as-yet, lack of commitment to the realignment, any span of the existing freight line must achieve sufficient clearances for freight trains.

Passenger services are provided by the TransWA Australind (Perth to Bunbury service). This train operates twice daily in each direction. It has stops in Mundijong and Byford, stopping for pre-booked journeys only. In the longer term, the Armadale passenger rail line may be considered for extension beyond Byford (potentially to Mundijong as per the Shire's expectations in the draft Local Development Strategy). There may or may not be consideration of an intermediary station adjacent to the Whitby district centre.

Whitby is located in fare zone 5 for Transperth services. Existing bus routes 252 and 253 operate along Soldiers Road between Mundijong town centre, Byford and Armadale train station. The 253 connects onwards to Jarrahdale town centre. The operational timetables are limited, suiting commuters and school students connecting to Armadale.

In future, two bus services would be likely to access the Whitby ACP although these will be contingent on future funding. The centre may be a terminal stop for at least one of these services for a period of time (especially prior to the grade-separated rail crossing being delivered), while in the longer term, both services would through-run. Operating frequencies are yet to be determined, but unlikely to exceed 30 minutes in peaks and hourly during the inter-peak.

The services would likely travel east-west across the centre and travel northwards to Byford via South Western Highway. Transperth requires one active stand per direction on the main street through the centre, measuring 4.2 metres wide and 24 metres long, suiting timed stops and articulated vehicles, if required. An additional layover stand is required in an accessible, nearby location.

2.2.3.3 Private Vehicles and Parking

Clause 7.7 of the Shire's Town Planning Scheme (TPS) No. 2 specifies parking requirements for non-residential land uses. Residential parking requirements are addressed in State Planning Policy 3.1 (Residential Design Codes).

Parking requirements for non-residential land uses proposed in the TPS is shown in the following table

LAND USE	PARKING REQUIREMENT (MINIMUM)
Child care	1 space per 5 children
Supermarkets	1 space per 12.5m ² gross leasable area
Discount department store	Rate to be determined by Council
Tavern	1 space per 2m ² bar and lounge area
Mixed retail tenancies	1 per 15m ² gross leasable area*
Medical centre	6 spaces for 1 practitioner plus 4 for each additional practitioner
Pharmacy	Rate to be determined by Council
Hydrotherapy	6 spaces for 1 practitioner plus 4 for each additional practitioner**
Café	1 space per 4 persons accommodated***
Library, civic use and outdoor flexible space (e.g. market)	Rate to be determined by Council

*'Shop' rate

**Anticipated same as for consulting rooms and medical

***'Restaurant' rate.



TPS No. 2 does allow for reciprocal use of parking facilities as long as proponents demonstrate peak demands do not coincide and a relevant legal agreement is established. In addition, the Scheme includes a cash-in-lieu provision under specific circumstances (clarified further in Local Planning Policy 1.8: Cash-in-lieu for Parking).

The parking rates specified reflect peak needs for isolated, suburban land uses. Typically, these rates are also sourced from North American studies and have limited relevance to Western Australia. In particular, the rates for supermarkets, shops and medical centres are high.

In this case, Whitby Activity Centre will rely on a reasonably significant proportion of arrivals by car; however, the diverse mix of land uses, which will increase over time, will present strong opportunities for sharing of parking assets, internal trip capture (e.g. multipurpose trips by visitors to the centre) and passer-by trade. In the future, there will also be a basis for Council to supply public parking rather than requiring new parking supply associated with new builds.

2.2.3.4 Freight and Servicing

South Western Highway is a Major Freight Road and the only road in the existing, surrounding network with a freight road designation. Tonkin Highway is a Strategic Freight Road that will become an alternative route for freight traffic when extended southwards from Thomas Road to Mundijong Road.

2.2.3.5 Movement Network Summary

There is a limited movement network presently in Whitby and the surrounding, district network is coarse, reflective of existing rural, dispersed land uses. Over time, various subdivisions will occur in Whitby generally in accordance with the approved Whitby LSP, delivering multimodal infrastructure and connections.

Recent and ongoing modelling by other consultants on behalf of the Shire and Department of Planning, Lands and Heritage will have some bearing on the timing, form and function, and number of district road connections. These decisions, which are pending, will affect access to the Whitby district centre. In particular, the main street through the centre, which was shown in the approved Whitby LSP as a neighbourhood connector, is now proposed to be an Other Regional Road (Integrator Arterial), aligned between Tonkin Highway and South Western Highway.

It is critical for the integrity and multimodal functionality of the Whitby district centre that this connection is designed appropriately and functions satisfactorily as a main street, facilitating bus-based access, pedestrian activity and on-stree parking.



2.3 Planning Context

In addition to the physical, economic, social and infrastructure context for the centre, its development will be guided by its planning context. This section outlines the planning context for the Whitby ACP, and, specifically, the state and local planning guidance most relevant to the centre.

2.3.1 State Planning Framework

State Planning Strategy

The State Planning Strategy was prepared by the WAPC as a whole of government approach to guide sustainable land use planning throughout the State up until 2029. The Strategy is aimed at developing a land use planning system to help the State achieve a number of key goals. These include generating wealth, conserving and enhancing the environment and building vibrant and safe communities for the enjoyment of this and subsequent generations of Western Australians. The Strategy was last audited in 2000-2001.

Perth and Peel @3.5million

The Western Australian Planning Commission has created a series of planning frameworks, with a unified, long-term growth strategy for land use and infrastructure for the Perth and Peel regions. The Perth and Peel@3.5million strategic suite of documents has been developed to the future of the metropolitan region, and how to accommodate a substantially increased population.

The frameworks provide guidance on the location of future sustainable areas, to ensure the impact of urban growth on areas of heritage and environmental significance is minimised while ensuring infrastructure and urban growth is efficiently coordinated.

South Metropolitan Peel Sub-Regional Planning Framework

The sub-regional planning framework provides further detail for implementation of the principles outlined in Perth and Peel@3.5million. At the sub-regional scale, specific future sites for urban expansion and investigation are identified, and with them infrastructure to ensure integrated planning.

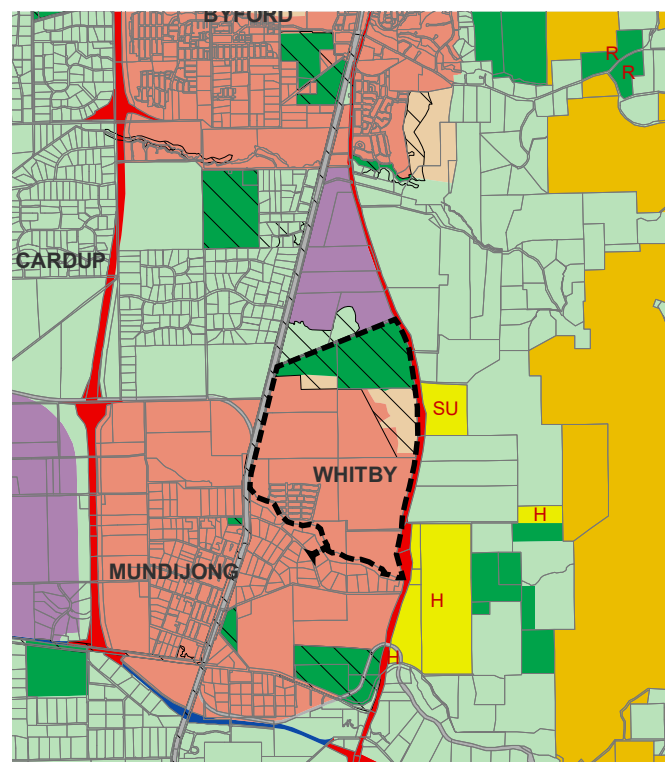
The Whitby activity centre is identified as a district centre within the sub-regional planning framework.

Metropolitan Region Scheme (MRS)

The MRS is the regional statutory plan for metropolitan Perth. It provides for the coordinated and sustainable growth of Perth by zoning land under several broad categories (most relevantly, Urban, Urban Deferred, Industrial and Rural). Further detailed zoning within these broad categories is provided at a local government level.

The site is zoned 'Urban' under the MRS, with a Reserve for Railways located on the western boundary of the site and Bush Forever (BF) site 354 is located in the northern portion of the LSP area.

Figure 10: MRS Zoning



LEGEND	
Reserved Lands	Zones
Parks and recreation	Industrial
Restricted public access	Rural
State forests	Urban
Reserved roads	Urban deferred
Primary regional roads	Notice of delegation
Other regional roads	Bush forever
Public purpose reserves	Redevelopment schemes
Public purposes - denoted as follows:	Scheme Boundary
Hospital	
Special uses	



State Planning Policy No. 3.6 - Developer Contributions for Infrastructure (SPP 3.6)

SPP 3.6 sets out the principles and considerations that apply to development contributions for the provision of infrastructure in urban areas. The policy brings together Planning Bulletin 18 - Developer Contributions for Infrastructure and Planning Bulletin 41 - Draft Model Text Provisions for Development Contributions.

The policy sets out the form, content and process for the preparation of a development contribution plans (DCPs). The Shire of Serpentine Jarrahdale is preparing a DCP for the district cell, in partnership with landowners and WAPC. The DCP will be implemented in keeping with the principles of SPP 3.6.

State Planning Policy No. 3.7: Planning in Bushfire Prone Areas (SPP 3.7)

SPP 3.7 provides for risk assessment and management in planning and designing settlements in areas at risk of bushfire. The policy enables the creation of a framework to ensure bushfire risk is well managed through strategic planning, structure planning and detailed planning processes.

The policy enables areas of higher and lower risk to be identified and provides guidance on standards to apply to development depending on the identified risk for a site.

State Planning Policy No. 4.2 - Activity Centres for Perth and Peel (SPP 4.2)

SPP 4.2 specifies broad planning requirements for activity centre development and renewal. SPP 4.2 replaced the previous Metropolitan Centres Policy Statement for the Perth Metropolitan Region, and focuses on greater diversity in land use, consolidated retail development, quality urban design and walkability. The policy is more flexible than its predecessor, and incorporates a wider range of uses for activity centres.

The purpose of Activity Centres Policy is to provide a broad regional planning framework to co-ordinate the location and development of retail and commercial activities in the metropolitan region. It is mainly concerned with the location, distribution, land use mix, diversity and intensity of activity, and broad design criteria for the development of a hierarchical network of activity centres at the regional and district level. The policy identifies Mundijong as an emerging District Centre. The provisions of this policy are reflected in the ACP.

SPP 4.2 defines an Activity Centre as follows:

‘Activity Centres are community focal points. They include activities such as commercial, retail, higher-density housing, entertainment, tourism, civic and community, higher education, and medical services. Activity Centres vary in size and diversity and are designed to be well-served by public transport.’

This ACP has been prepared to accord with the requirements of this policy, and has been assessed against the Model Centre Framework of SPP4.2.

State Planning Policy No. 5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning (2009)

SPP No. 5.4 is aimed at increasing awareness of transport noise and its potential impact on the amenity and quality of life for residents. The policy therefore has objectives and implementation strategies to ensure that land use and transport planning are compatible. The policy also establishes a standardised set of criteria to be used in the assessment of proposals affected by transport noise.

As the subject site is located adjacent to a freight and regional passenger rail line, due regard to this policy is essential to ensure that transport noise does not adversely impact the amenity of the centre.

State Planning Policy No. 7: Design of the Built Environment (Draft; SPP7)

This policy, which as of September 2018 is draft, provides principles and guidance for the design of urban and suburban areas. A range of aspects of design are ultimately proposed to be included within SPP 7 (also known as Design WA), however at present only the Apartment Design Guide has been identified as a “seriously entertained” document and therefore afforded some weight in development of this ACP.

DesignWA provides for development at medium and higher density, outlining major planning controls (heights, setbacks, plot ratio), more detailed controls (such as controls over vegetation and deep soil zones), and provides for development bonuses for proposals that are of high design quality and/or provide public benefit.



Liveable Neighbourhoods

Liveable Neighbourhoods is an operational policy been prepared to implement the objectives of the State Planning Strategy in urban and suburban settlement patterns. It has been adopted by the WAPC for the design and assessment of structure plans and subdivision for new urban areas and large brownfield or urban infill sites in the metropolitan area and country centres.

2.3.2 Local Planning Framework

Shire of Serpentine-Jarrahdale Local Planning Strategy (LPS)

An LPS is the primary strategic document guiding local governments, especially in considering review of and amendments to its local planning scheme.

A draft LPS was presented to Shire's December 2017 Council meeting. Its current status is however unclear. The version presented to Council intends to address the key opportunities, issues and challenges within the Shire. It includes a spatial plan of strategic land uses, infrastructure, and natural resources and guidance on implementation.

Shire of Serpentine-Jarrahdale Town Planning Scheme No. 2 (TPS 2)

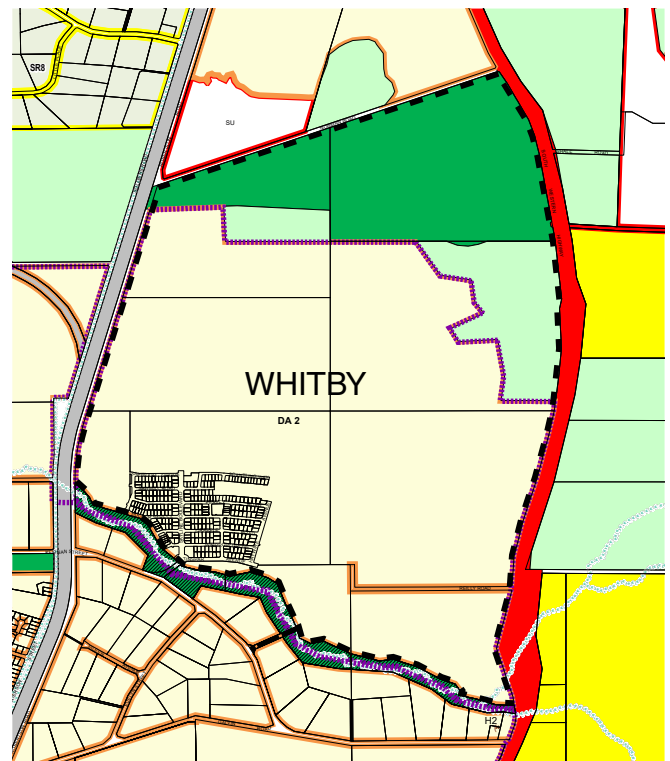
TPS 2 is the primary statutory document used in day-to-day decision-making within the Shire. The site is zoned 'Urban Development' under TPS 2, as an area of future urban settlement.

TPS 2 states that:

The purpose of the Urban Development zone is to provide for the orderly planning of large areas of land in a locally integrated manner and within a regional context, whilst retaining flexibility to review planning with changing circumstances.

Pursuant to clause 5.18 and Appendix 15 of TPS 2, a local structure plan for the whole or part of a precinct within the Whitby Development Area is required to be prepared, advertised and adopted by the Shire and the WAPC prior to the subdivision of the land. The Whitby LSP forms the whole of Whitby Development Area and Precinct A of the Mundijong-Whitby DSP, with the exception of the ACP area, for which this ACP fulfils the Scheme requirements for structure planning.

Figure 11: TPS Zoning



LEGEND

Region Scheme Reserves (MRS)

- Parks and recreation
- Primary regional roads
- Public purposes

Local Scheme Reserves

- Local Roads
- Public Open Space

Local Scheme Zones

- Rural
- Special Rural
- Special Use
- SU Special Use: Concrete Casting Operations
- Urban Development

Other Categories

(see scheme text for additional information)

- Scheme Area Boundary
- Local Government Boundary
- SRes1 Special Residential Area
- N6 Area of Natural Beauty
- DA1 Development Area



Shire of Serpentine-Jarrahdale Activity Centres Strategy

This strategy was prepared in order to bring Serpentine Jarrahdale Shire's approach to activity centre planning and development in line with State Planning Policy 4.2.

The main objectives of the strategy is to build on planning and analysis already undertaken; understand the relationship between centres; relate centre demand to residential growth; determine optimal sizing and development timing of centres; and to provide guidance on implementation.

The strategy identifies a district centre for the Mundijong-Whitby district cell, complemented by a number of smaller centres, and a population of 30-40,000 within the district cell.

Relevant to this ACP, some issues and opportunities identified in the strategy include:

- The need for district centres to be a critical mass, attractive to prospective tenants, consumers and employees
- The challenge in developing a "main street" centre in this context
- Allowing for flexibility and evolution in tenancy mix in centres
- The primacy of walkability and cycling
- The need for centres to be coordinated and complementary to maximise the strength of the local economy
- The desirability of integrating centres' activities, for example considering supply chains and synergy between uses

Urban Forest Strategy

This strategy, developed in 2018, provides guidance for the maintenance and improvement of tree canopy and vegetation within both urban and rural areas of the Shire. It outlines a range of goals, strategies and actions to achieve these goals.

Local Planning Policies (LPPs)

LPP 1.8 – Cash in Lieu for Parking Policy

LPP 1.8 outlines the circumstances under which cash in lieu can be sought for parking, and how the proceeds can be expended. It provides an important basis without which cash-in-lieu funds for parking could not be collected.

LPP 2.5 – Serpentine-Jarrahdale Activity Centres

LPP 2.5 provides guidance at a local level for activity centres, much of it reflecting guidance also provided in State Planning Policy 4.2. This includes providing for orderly and proper planning, legibility and identity, a mix of land uses including a diverse mix of residential, providing for walking, cycling and public transport, and to manage traffic effectively.

LPP 2.7 – Bio-Diversity Planning Policy

LPP 2.7 provides for the sensitive management of local environmental assets and biodiversity. This is of relevance to Whitby due to the ACP area including identified locally significant bushland, and also proximate to conservation category wetlands (west of the Whitby estate boundary).

LPP 2.8 – Public Open Spaces Policy

LPP 2.8 provides for the provision of a range of open spaces in an urban and suburban context, and provides some guidance and principles to be implemented in a manner recognising and responsive to local conditions. The ACP sits within the Whitby estate. Both the Mundijong-Whitby DSP and the Whitby LSP provide a context and, importantly, higher order open spaces (including regional open space).

LPP 4.8 – Land Sales Offices Policy

LPP 4.8 provides guidance on the location, design, and use of land sales offices, which are often interim or temporary uses within developing estates. The policy provides both performance criteria and identified best practice in addition to specific deemed-to-comply guidance. This policy is relevant to the ACP as a land sales office may be located within the ACP area.

LPP 4.9 – Fast Food Premises Policy

LPP 4.9 provides summary guidance on the development of fast food premises, including location of parking, amenity and presentation to the street, and providing for drive-through service. The Whitby district centre may feature fast food premises.



LPP 4.11 – Advertising Policy

LPP 4.11 outlines acceptable advertising signage within various zones as identified by the Scheme. This guidance makes some reference to cumulative impacts of signage but does not discuss signage strategies or similar as a means to coordinate advertising signage.

LPP 4.18 – Street Trees Policy

LPP 4.18 briefly sets out guidance on provision of street trees across the Shire, and how they may be provided. The policy alludes to an approved species list with the Shire, however species selection will rely on a number of other factors, such as access to water and local conditions. Street trees are recognised as important contributors to local character in the policy, and will be an important component of the Whitby district centre.

LPP24 – Designing Out Crime

LPP 24 outlines the application of Crime Prevention through Environmental Design (CPTED) principles within the context of the Shire, recognising that different elements apply at different scales and stages of the development process. Ultimately the policy seeks to reduce real and perceived anti-social behaviour and safety issues.

2.3.3 District Structure Planning

The current district structure plan over the site is the Mundijong-Whitby District Structure Plan (DSP), adopted in October 2010. The DSP was prepared by the Shire of Serpentine-Jarrahdale to provide overall guidance to the structure, vision and objectives identified for the area. The DSP is designed to establish the overall development theme and address major district wide issues in order to facilitate efficient and coordinated development in a manner that delivers the objectives and vision identified.

Within the DSP, the subject site forms part of Precinct A, which is the Whitby estate landholding.

The Vision in the DSP is “A contemporary, connected place reflecting the community’s rural character, green values and vibrant village feel.”

Accompanying this vision are nine objectives comprising biodiversity, landscape protection, water resource protection, distinctive urban form, sustainable movement networks, climate responsive design, economic prosperity and community wellbeing.

The DSP identifies a district scale centre in the western portion of the Whitby precinct adjacent to the rail corridor, a surrounding residential area, nearby provision of schools and a potential TAFE campus, and connections to other precincts via an integrated transport network.

More recently, a “Local Development Strategy” covering an expanded Mundijong Whitby district cell has been developed by the Shire. This is understood to be in draft, currently being revised and final form is still unclear. Accordingly it does not currently have formal status but has been noted in preparation of the ACP.

The longer-term planning objectives in recent district structure planning is for two district centres within the Mundijong District Structure Plan area, the Whitby District Centre and the Mundijong District Centre. The Mundijong District Centre will have the function of a civic and governance precinct.



Figure 12: Whitby Local Structure Plan

Community Design Principles

- The LSP is intended as a guide for future urban development with the objective of generally identifying appropriate locations for housing types and densities whilst permitting flexibility to ensure the delivery of a diverse range of lot sizes;
- The neighbourhood structure should be sufficiently robust to facilitate diversity of land use (mixed use development) which is flexible and adaptable to change.

Activity Centre Principles

- The District Centre precinct is the identified activity centre and is envisaged to be a highly functional mixed use precinct comprising transit facilities; district and local retailing, mixed use development (including residential) within a high quality public domain;
- The District Centre will be subject to the preparation of a Activity Centre Structure Plan to determine design content including allocation of uses, final design layout, community and civic uses, retail floor space, transit provision, parking and general development standards, in accordance with WAPC policy;
- The District Centre precinct offers the opportunity for development in accordance with main street principles;
- The District Centre precinct is reliant on the adjacent rail crossing as depicted in the DSP and LSP, and is subject to change in commercial floorspace area should this not be provided
- Local activity nodes are identified on the LSP where mixed use development comprising residential, retail and/or civic uses will be permitted, subject to the preparation and approval of a Area Specific Plan.

Biodiversity and Resource Efficiency Principles

- Development and lot layout is to be oriented to maximise opportunities for energy efficient house design including passive solar design
- Development is to respect existing landforms and where practicable provide opportunities to retain the natural topography
- Design and implementation is to retain vegetation of local and regional significance where practicable

Housing Diversity (Lot Layout) Principles

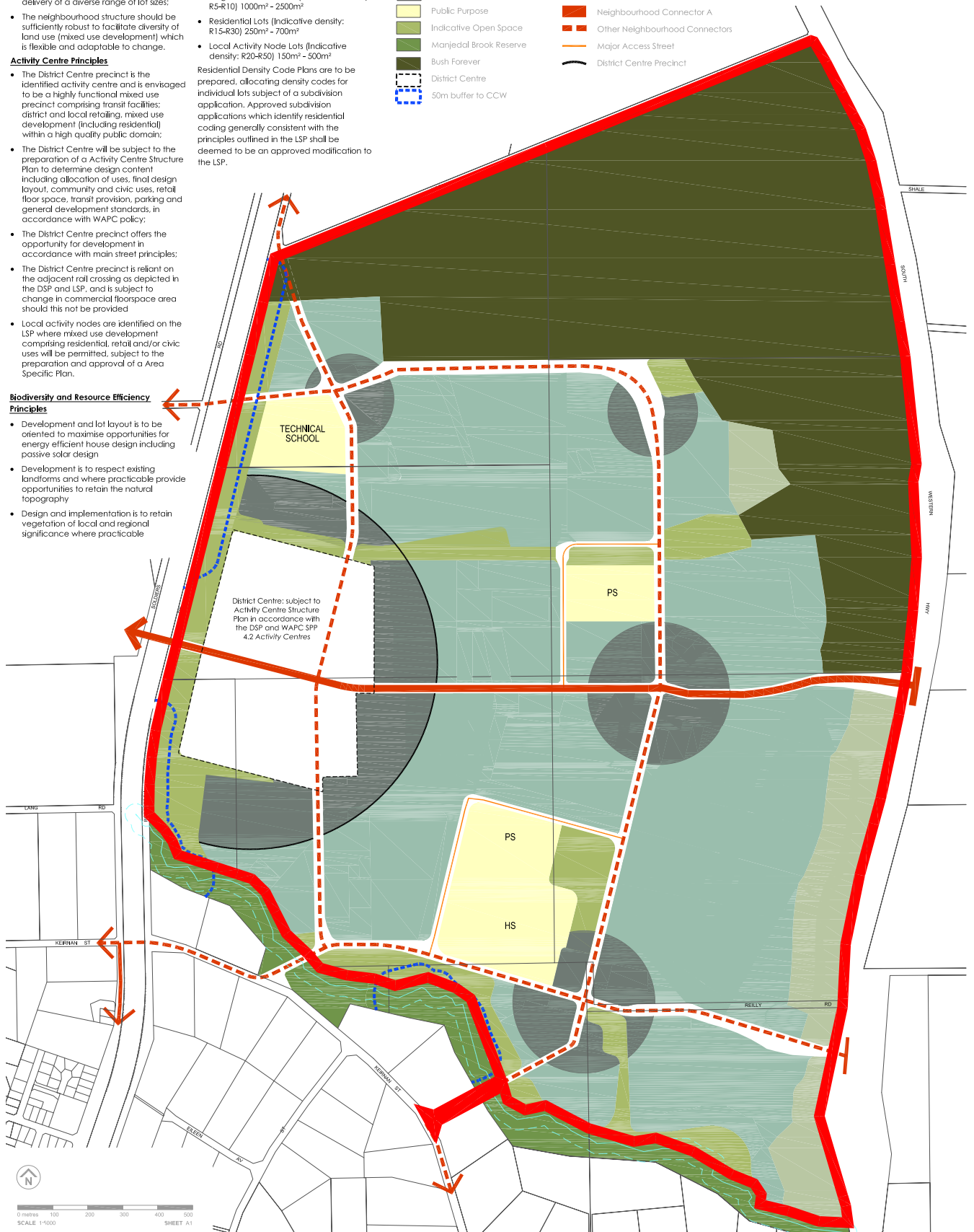
Final residential densities will be determined at subdivision application stage; however will generally comply with the lot sizes and densities as identified on the LSP:

- Larger Residential Lots (Indicative density: R3-R10) 1000m² - 2500m²
- Residential Lots (Indicative density: R15-R30) 250m² - 700m²
- Local Activity Node Lots (Indicative density: R20-R50) 150m² - 500m²

Residential Density Code Plans are to be prepared, allocating density codes for individual lots subject of a subdivision application. Approved subdivision applications which identify residential coding generally consistent with the principles outlined in the LSP shall be deemed to be an approved modification to the LSP.

Legend

- Larger Residential (R5-R10)
- Residential (R15-R30)
- Local Activity Nodes (R20-R50)
- Public Purpose
- Indicative Open Space
- Manjedal Brook Reserve
- Bush Forever
- District Centre
- 50m buffer to CCW
- Manjedal Brook - Top of Bank
- Manjedal Brook - Top of Bank (30m buffer)
- Subject Land
- Neighbourhood Connector A
- Other Neighbourhood Connectors
- Major Access Street
- District Centre Precinct





2.3.4 Local Structure Plan

The Whitby Local Structure Plan (LSP) was prepared to guide the subdivision and development of land contained within Precinct A of the Mundijong Whitby District Structure Plan (the subject site).

The Local Structure Plan aims to create a residential neighbourhood in line with the Shire's vision for the area, as set out in the Mundijong Whitby District Structure Plan (DSP). Accordingly, the LSP provides for the following key components:

- A diverse range of residential lot sizes
- Allowance for a future passenger rail station adjacent to the District Centre
- Access points from the LSP area to adjoining areas (generally consistent with the DSP).
- A wide variety of open spaces
- Retention of existing stands of locally significant vegetation
- Allowance for a potential future TAFE site
- Two primary schools and one high school

The LSP included a number of appendices, including a Local Water Management Strategy (LWMS). The LWMS reflects the overall estate boundary and accordingly includes the ACP area.

2.3.5 Estate Vision

The vision for the Whitby estate is important in shaping the design response and character for the estate, and also for providing context for the district centre.

As the Whitby LSP was developed, the local community and the Shire have held a consistent aspiration that urban growth within the Shire ought to reflect a "village feel", and avoid the characteristics of suburban sprawl. This is an aspiration shared by the proponent.

The formulation of the LSP has paid close consideration to pursuing this objective, both in recognising village or "south west town" attributes in the design of its structure, as well as principles to be acknowledged in the progressive detailing of the plan in subsequent planning stages.

This vision for a "south-west town" is reflected in street layout (specifically a modified grid layout), and application of character in a context reflective of intensity of development; specifically, drawing on the principles of the "transect", and based on relevant precedent.

It should be noted that the vision for the district centre is distinct from this estate vision, and is discussed further in section 3.0 of Part 2 of this ACP.



Figure 13: Conceptual layout of District Centre, as depicted in the Whitby LSP





2.3.6 Pre-Lodgement Consultation

2.3.6.1 Agency Consultation

It is essential to identify potential risks and issues with an activity centre plan early in the process. An important component of this process is ongoing liaison with government agencies. This assists not only in identifying issues, but also assist to understand all parties' aims and to work collaboratively towards solutions.

A summary of consultation and liaison with agencies in preparation of this ACP is as follows:

DATE	AGENCY/IES CONSULTED	SUBJECTS OF DISCUSSION
August 2017	Shire of Serpentine-Jarrahdale; Dept of Planning, Lands and Heritage	Connections to Whitby estate, particularly across the rail line; layout of district centre
March 2018	Department of Planning, Lands and Heritage	Presentation to project team by DPLH regarding sub-regional traffic study conducted by Shawmac, assessing future traffic demands on a new Other Regional Road connection between Tonkin Highway and South Western Highway via the Whitby cell
April 2018	Department of Planning, Lands and Heritage	Discussion regarding detailed ORR traffic study assumptions and findings
July 2018	Transperth	Future bus route planning and requirements for active stands and layover in Whitby centre
July 2018	Shire of Serpentine-Jarrahdale	Connections to Whitby estate, particularly across the rail line; layout of district centre
July 2018	Main Roads WA	Email advice from Road Planning Branch regarding future permitted road connections to South Western Highway
August 2018	Shire of Serpentine Jarrahdale; Department of Water and Environmental Regulation	Outline drainage approach for ACP and discuss requirement for LWMS addendum.
October 2018	Shire of Serpentine-Jarrahdale	Present Draft ACP, design and density rationale



2.3.6.2 Community Feedback and Research

As part of considering the future of the Whitby town centre, it is important to collate and understand community feedback and inputs. Generally, this feedback does not directly relate to, or respond to questions regarding the Whitby town centre. However some expressed preferences and aspirations from the community can be incorporated into the town centre, as it will inevitably be a focus of activity and opportunity.

Two sets of community feedback inform this section: the Shire of Serpentine-Jarrahdale Strategic Community Plan, undertaken on behalf of the Shire, and the Whitby residents' survey regularly undertaken by the proponent and most recently in December 2017.

From the Shire of Serpentine-Jarrahdale Strategic Community Plan, the following core community aspirations (across the Shire, not just for Whitby) were summarised in documentation prepared by the Shire.

- **Community** – a connected and vibrant community throughout each neighbourhood
- **Natural Environment** – Maintain natural features and access to the natural environment for future generations.
- **Rural Lifestyle** – Maintain aspects of the rural lifestyle; its peaceful, tranquil and relaxed country lifestyle preserved as the population grows.
- **Family Friendly** – Promote a family-friendly environment with safe places for children to grow up with a close-knit, family-friendly communities.
- **Innovation** – be open to new technologies and embracing innovation, by being progressive and embracing change and creative thinking.

The regular resident surveys identified the Whitby estate as ideally becoming a place with:

- Beautiful active parks with lots of amenities for all ages, with picnic spots, dog walkers, family BBQs, and sporting facilities
- Streets and public spaces full of life
- A safe and family-friendly atmosphere
- A pleasant and easy walk to shops, schools and community services
- A range of community facilities and attractions
- A local country charm and outdoor lifestyle

A number of common themes can be identified in this feedback, including:

- A focus on a connected, friendly, close-knit community (including spaces that promote this connection)
- Convenience and proximity to shops, community facilities and attractions
- Great outdoor spaces that are active, provide a range of amenities, and celebrate natural features
- A relaxed atmosphere, reflective of country charm and lifestyles

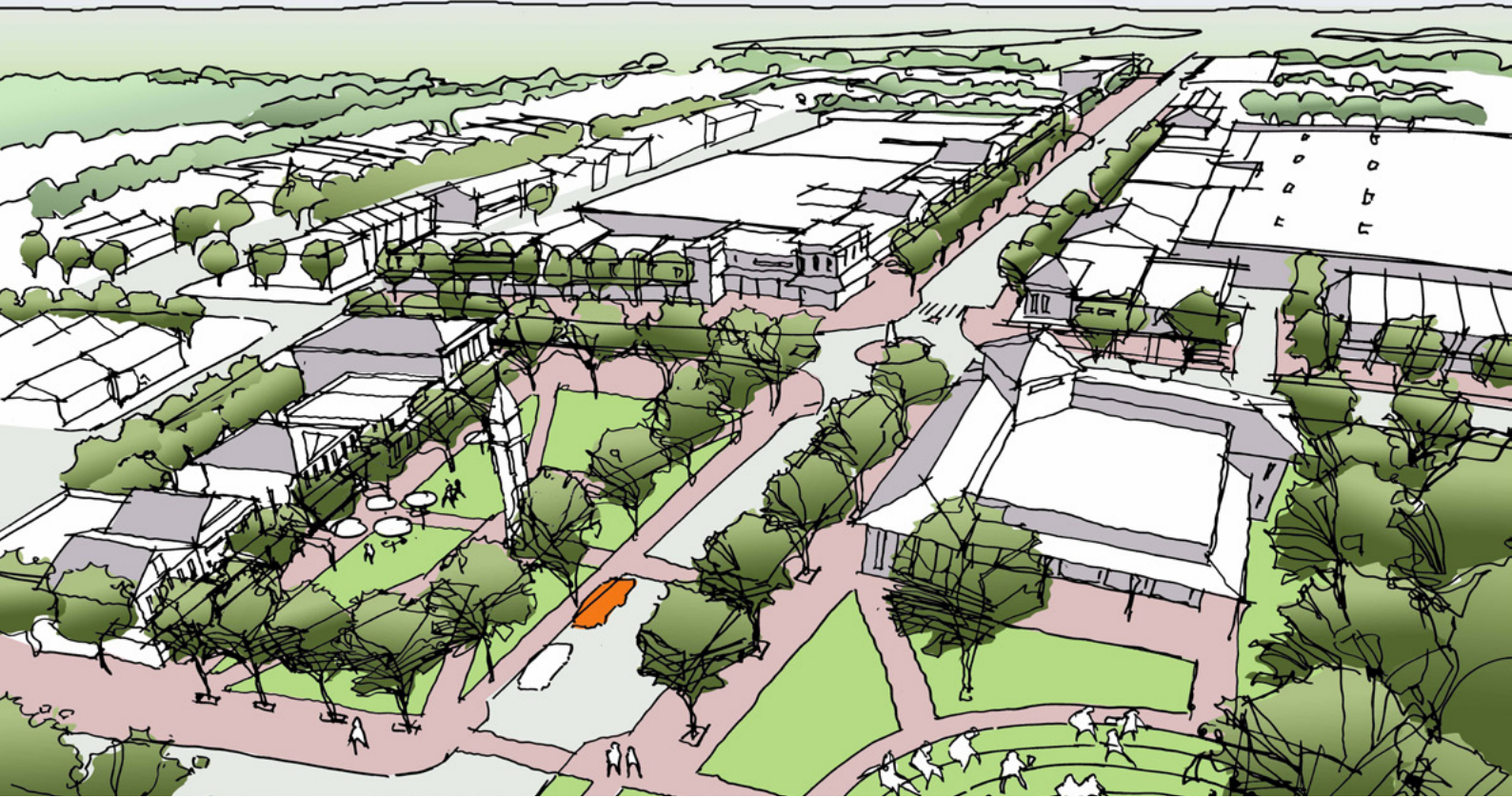
Within the Whitby town centre, there are opportunities to address these common themes and aspirations, including:

- Providing opportunity for interaction, both formally with community facilities, events and play areas, and less formally with a main street design that enables incidental and casual interaction (particularly in keeping with a "country town" atmosphere)
- Providing convenience and proximity to services by ensuring a permeable movement network, for pedestrians, cyclists and private vehicles; a regular grid pattern is both permeable and reflective of traditional town design
- Drawing on the local natural assets, including the appealing backdrop of the Darling Scarp, locally significant retained bushland, and other trees and vegetation retained where possible, and planting of trees to provide further character and appeal
- A low speed environment, where the focus is on pedestrian safety and connection.

This feedback, where it is applicable to a town centre, can be incorporated into the vision for the town centre, and in turn into its design and operation. In recognising and responding to aspirations of local residents and the broader community, the town centre will be valued and confer a sense of pride and ownership for locals.



Figure 14: Perspective Sketch of District Centre from Whitby LSP



RESIDENT FEEDBACK FROM COMMUNITY SURVEY

"It should feel like a country town with a local bakery, café, butcher and grocery. The town should encourage more greenery and nature to be incorporated into the surroundings, including community vegetable gardens."

"I would like to see lots of amenities for the people of Whitby, so we can walk to a local shop or even have a tavern that we could meet to have a drink."

"Green, sense of space, friendly and welcoming. Local shops, gyms and more walk/cycleways that are more connected"

"Whitby could be the hub of activity for the surrounding areas while maintaining a nature-based community feel with public transportation access."

"Would love to see Whitby grow - but to still keep the homely/country feel you get when entering the estate (farms around, view of hills, bushland etc)"

"I would love to keep some of that classic small town charm, large old trees, lots of open spaces and parks"



2.3.7 Place Characteristics

Although the centre is undeveloped, a number of nearby elements and characteristics provide direction for how Whitby town centre can become an appealing and distinct place. Sources of amenity and character, both in close proximity and further afield (but visible from the town centre) contribute to the setting and future character where the design celebrates these elements.

In addition, future development can develop distinctive character where it incorporates a number of elements including:

- Major landmarks, nodes and entry points that herald and reinforce the identity of the town centre;
- Use of appropriate colours and materials in the finish of buildings and the public realm;
- Selection of architectural features to incorporate into built form, especially where it contributes to the public realm;
- Design of the public realm, including selection of tree species and landscape design;
- Public buildings and structures, monuments and public art used in the public realm; and
- Human activity generated, specifically through the combination of uses, events and facilities available in the town centre, and the interactions they facilitate

This provides some guidance on the elements to be incorporated into the design and ongoing operation of the town centre to promote a distinctiveness that is valued by the local community, and a uniqueness that serves as a source of local identity and pride.

2.3.8 Centre Opportunities and Constraints

The preceding sections of this report have outlined the existing conditions, emerging trends and site-specific considerations relevant to planning a district centre in this location. Some of these factors can be characterised as opportunities and constraints, and the most significant of these are outlined as follows as a summary of key factors influencing planning and future operation of the Whitby town centre.

The design response and planning framework proposed include measures to amplify and capitalise upon opportunities, and minimise risk associated with potential constraints and issues.

Where practicable, key opportunities and constraints have been represented on the Opportunities and Constraints Plan (Figure 15).



Opportunities

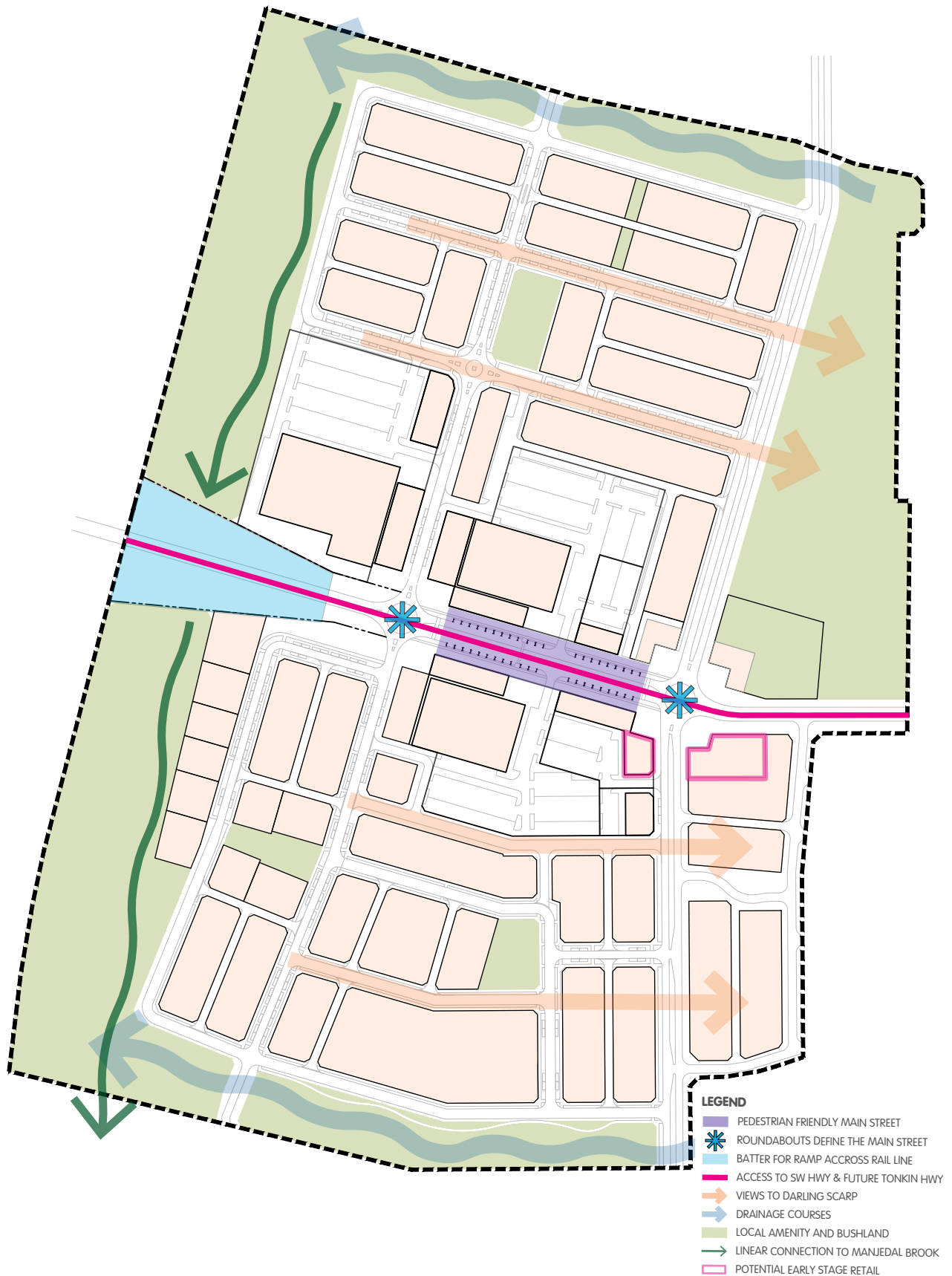
- Potential for a Metronet extension and new station at Whitby, particularly given its catchment (east and west of the rail line around Whitby) is relatively unconstrained and land ownership is not fragmented, leading to improved Transit Oriented Development opportunities. The Whitby District Centre is the logical location for a station within the Mundijong-Whitby district cell.
- As a greenfield, emerging centre, there is opportunity for growth over time, as the catchment matures and develops.
- There is an identified demand for innovation and local economic activity – creating local jobs – but limited opportunity at present to develop this activity locally. The town centre provides the opportunity for this activity to incubate and then grow with the development of the Centre.
- As a natural focus for residents in the district cell, the centre could contain a significant community and civic element. This civic and community presence, in addition to support for local business development, can enable the centre to provide a mix of uses substantially beyond typical retail uses
- Once constructed, the centre will be accessible from the north, south, east and west via Skyline Boulevard and the new main street
- The centre enjoys substantial views to the Darling Scarp, direct connection to locally significant bushland, and views of the Bush Forever site to the west
- The history of the site and district can be incorporated into the future centre
- Connection to linear recreation routes, including Manjedal Brook, the rail line corridor and along the multi-use corridors can inform the public realm and the facilities and uses offered in the centre. The town centre can become a significant destination within the Shire of Serpentine Jarrahdale

Constraints and Issues

- Density requirements in this specific centre represent a challenge given the local context and constraints. Under SPP4.2, the density requirements for the ACP are 20 dwellings per gross hectare. In the context of the ACP, the gross area includes substantial areas that cannot be built on, requiring an increase in the net density of developable land. As such, the dwelling mix required to deliver density for the requirements of the ACP could significantly slow the delivery of the residential component of the centre.
- A high water table renders substantial tree retention difficult, and also provides a further constraint on higher density
- Grade separation requirements for crossing of the rail line removes additional developable land from the centre
- Potential design of the main east west street as a high speed environment is a major issue for the future of the centre; it would result in the main street acting as a hostile barrier to pedestrians, with substantial impacts on the amenity and appeal of the centre
- The rail line serves as a barrier, limiting access to the centre from the western half of the district cell, and in creating acoustic impacts requiring buffers that further limit residential development within the centre
- The nearby wetlands are considered environmental assets and as such, require significant buffers that constrain some land in close proximity to the centre
- It is understood that the Cardup industrial precinct north of Whitby will include a substantial element of larger format retail and service commercial. These uses are often accommodated within district centres, however with the Cardup Industrial precinct also making provision for large formal retail, the opportunities for the ACP may be limited, impacting on the mix of uses in the centre
- There is some uncertainty over the future of retail, and the type and range of retail to be provided locally in centres. A prominent example of this is the Discount Department Store, the absence of which would likely render the centre a neighbourhood, rather than district centre



Figure 15: Opportunities & Constraints Plan





3.0 Activity Centre Plan Response

3.1 Place Vision

As a focus for the Whitby estate and the local community, and as a centre with a multitude of stakeholders, execution of the town centre must be well-coordinated.

Without a shared idea of the intended future of the centre, efforts by stakeholders in the centre (including business owners, landowners, local and state government) could lead to confusion and conflicting outcomes. A well-understood shared direction is important and such a vision for the centre has been configured to guide the development of the ACP.

The preceding sections of Part 2 of this ACP have provided some context (including physical, economic, policy and demographic) to illuminate the challenges and opportunities facing the town centre. Synthesis of these opportunities and constraints, and other relevant considerations, have assisted in developing the vision for the town centre, which in turn informs the design response and ongoing operation of the centre.

The vision for the town centre is as follows:

Healthy, instinctive and welcoming; the Whitby Town Centre reflects its natural foothill landscape and evolving into an enterprising residential and employment hub for the Serpentine-Jarrahdale community.

It has a distinct civic-minded 'country town' atmosphere.

Its well-designed streets, amenities and public spaces that put people first are full of diverse friendly locals, lively street encounters and locally unique experiences.

The role of the vision is to inform the evolution of the Whitby Town Centre, including design development; approach to land use and activity; establishment of community and civic uses; execution of the public realm; decision-making by all parties; and the ongoing stewardship of the centre.

The balance of Part 2 of this report documents the design response for the centre, and discusses in detail its various elements. In all cases, the vision has been an integral element in response to specific identified issues and approach to solutions. In some instances, the connection to the vision is made explicitly, to underline this approach.

3.2 Plan Overview

This section introduces the detailed design of the activity centre. The detailed design features in Part 2 are illustrative and directly inform the plans in Part 1 of this ACP (the Implementation Section). The following section, (3.2.1 Plan Features) progressively details the design approach undertaken for the ACP, incorporating various site-specific factors, unique features, policy guidance, opportunity for amenity, and other considerations.

The subsequent section (3.2.2) focuses on key outcomes of the plan, which are both qualitative and quantitative, include land use mix, floorspace, residential mix, landmarks, character elements and a range of other features.

3.2.1 Plan Features

The following features and factors provide an illustrative sequence explaining the development of the detailed design for the ACP, responding to various influences and imperatives.



Natural Boundaries

The first considerations for the site were the major existing natural features and external elements influencing the plan. This includes the rail line to the west, which carries the regional Australind service and, at present, additional freight services. Located along the rail line, conservation category wetlands have been identified, and the required buffers have an impact on the design of the centre. The rail line itself necessitates a buffer to manage acoustic impacts, which similarly influences the plan. Finally, the locally significant bushland to the north east has been identified for retention and is therefore part of the public open space network.

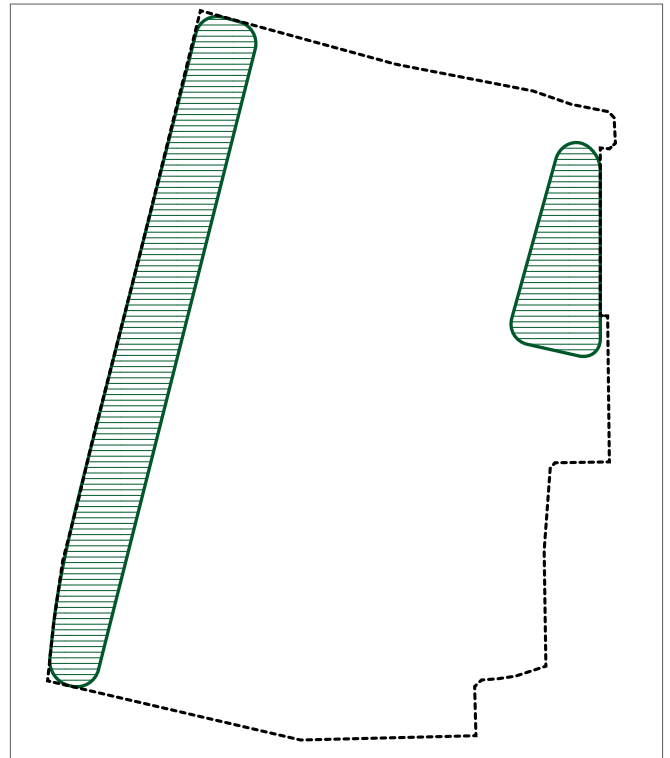


Figure 16: Natural Boundaries

District Structure Plan Elements

The District Structure Plan provides further guidance in shaping the design of the ACP area. A public transport node and corresponding 400 metre catchment is employed as a guide for the boundary of the ACP. Multi-use corridors to the north and south of the site, required as part of the open space and drainage network, provide natural boundaries for the centre. Street connections are also identified in the DSP, specifically the extension of Skyline Boulevard to the north, and the establishment of an east-west connection through the centre. The quantum of commercial floorspace for the centre is also identified in the DSP.

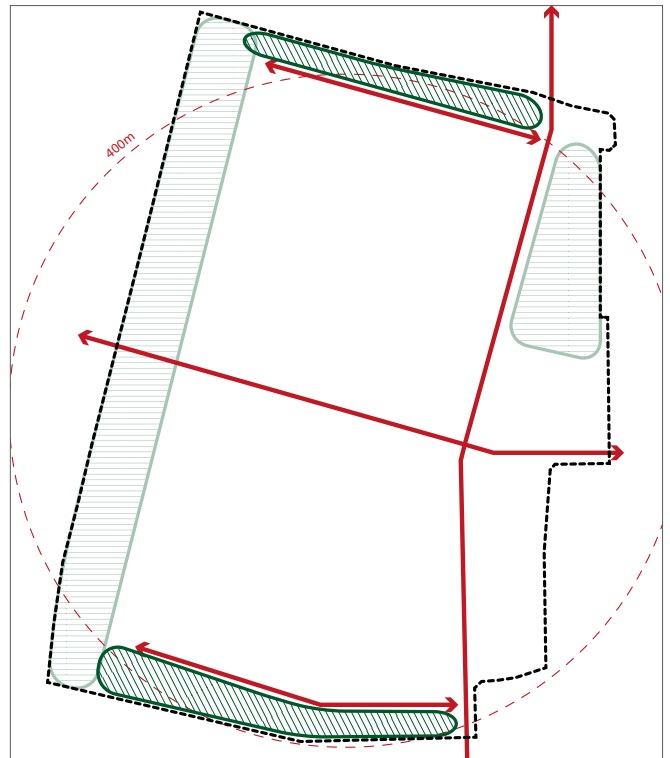


Figure 17: District Structure Plan Elements



Main Street Approach

From a design perspective, the need for a main street approach was clear. Not only is it an important element of “country town” character, it provides for mixed use development that can grow and evolve organically. It reflects contemporary retail trends, which focus on uniqueness, identity and experience, but equally it enables easy adapting in the future should trends change. A vital element is that the main street experience is a pedestrian friendly experience: low traffic speeds, ease of crossing the street, a series of interesting experiences and points of visual interest, and an exemplar public realm that provides shade, shelter, relief and character. The open space at the eastern end of the main street is an important component, serving as a focus of community activity and substantial visual amenity.

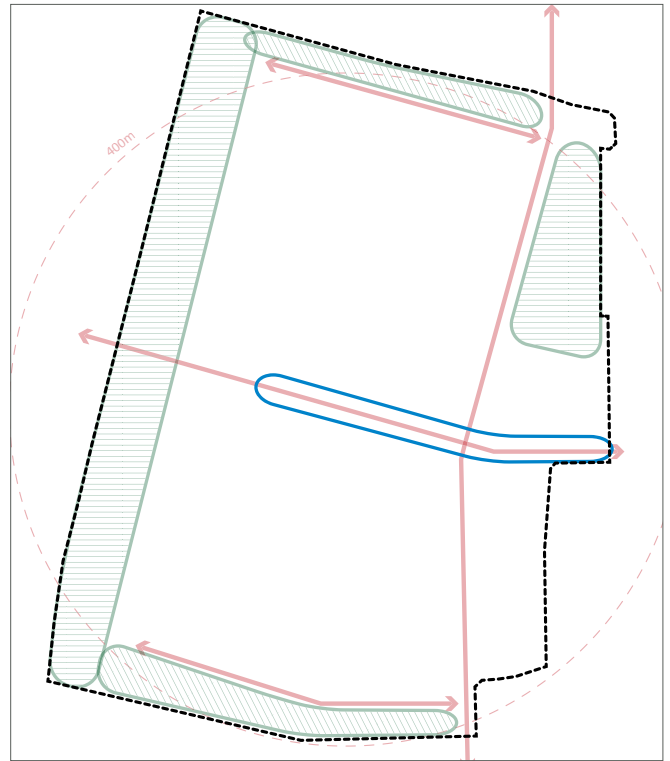


Figure 18: Main Street Approach

Core Retail and Active Civic and Community Elements

Inherently, a main street is the focus of activity, with core retail uses, important civic uses, and associated activity distributed along the street, in staged development as its catchment evolves. These uses are in a variety of buildings, all providing a defined edge to the town centre yet providing some variety in form, as is often seen in a “country town” context. The combined effect of these with the public realm and the main street provide the key elements in reflecting and establishing the Whitby town centre.

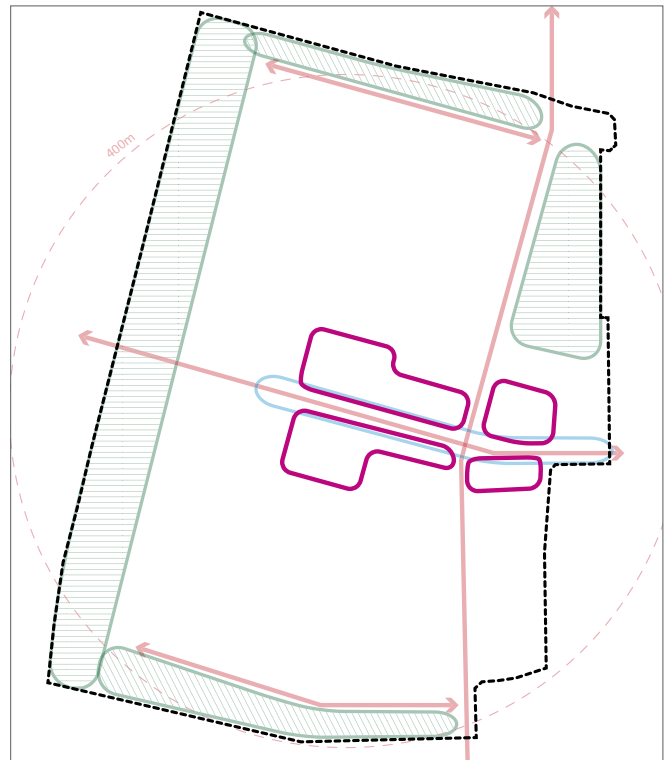


Figure 19: Core Retail and Active Civic and Community Elements



Surrounding Commercial

Beyond these core uses; other commercial uses will be located near the main street. These may occur in dedicated commercial space, or in flexible space that can house residential or a range of non-residential uses. Commercial uses can include some larger format (or less intense) commercial uses, more vehicle-based uses, offices, small and establishing local businesses, and uses supporting the core retail and community uses. The amount of space for larger format retail is substantially tempered by expected competition for these uses from Cardup.

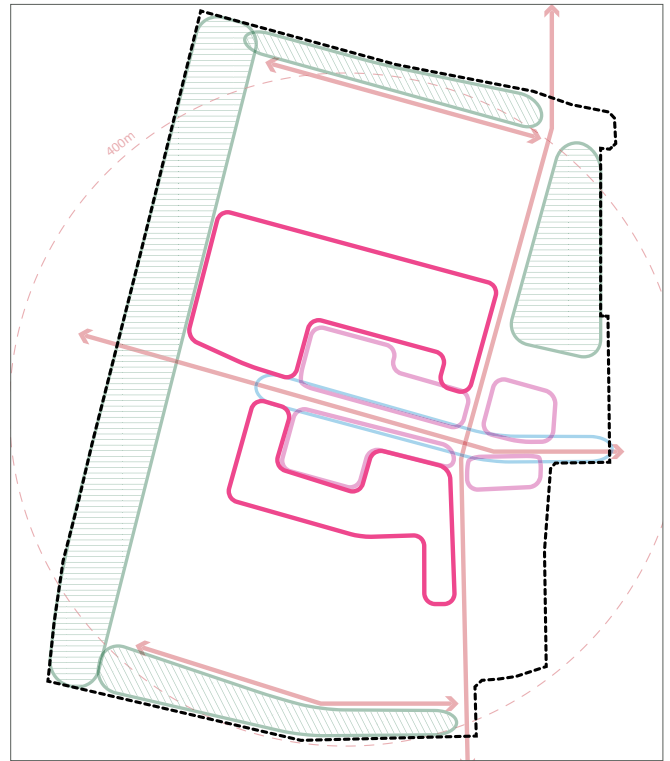


Figure 20: Surrounding Commercial

Urban Parks

The main street will provide some relief and open spaces, whether the spaces are publicly or privately controlled. However for development of this intensity, smaller urban parks are an important part of the local open space network. These are proposed off the main street, but generally within the ACP area. These spaces provide opportunity for local recreation and relief, particularly for surrounding residents, with most areas in the ACP area within 200-300m (a 2-3 minute walk) of a park.

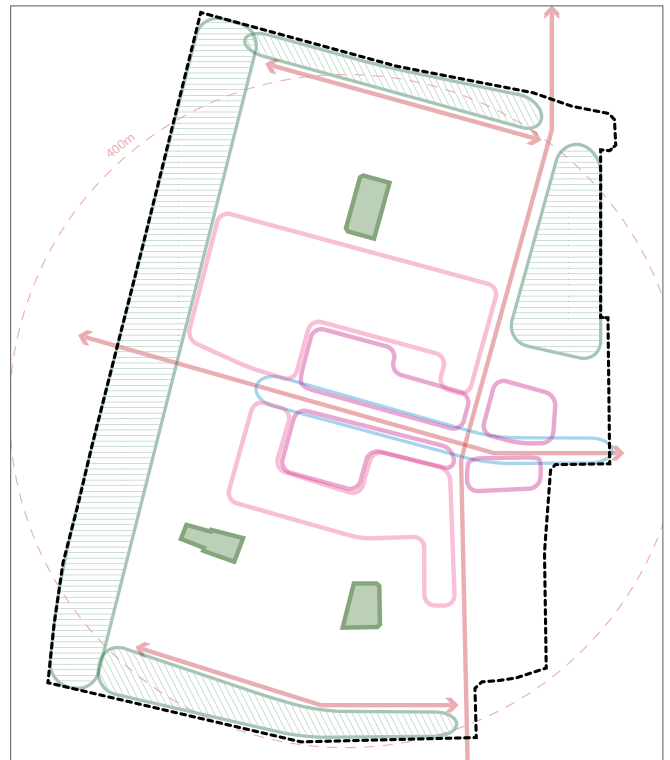


Figure 21: Urban Parks



Views to amenity

Significant areas of amenity surround the centre, and as such are acknowledged and reflected in the design. The sources of amenity include the Darling Scarp, the locally significant bushland and the potential for mature trees along the rail line to form an attractive backdrop.

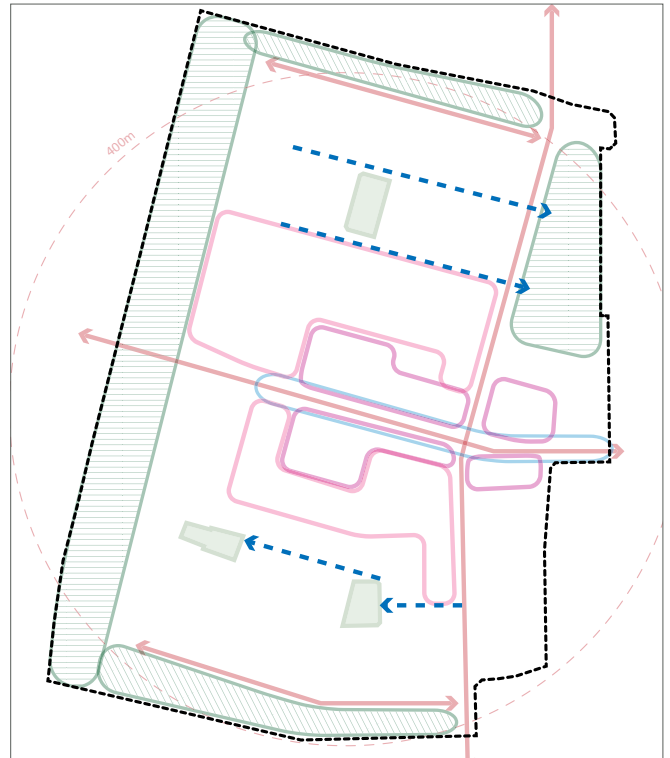


Figure 22: Views to amenity

Street Network

With sources of amenity identified, the street network has been configured to maximise the local vistas. The predominant east-west orientation of the grid draws on both the amenity of the Darling Scarp and the mature vegetation along the rail line. Within the centre, views to the locally significant bushland and pocket parks provide attractive vistas. Similarly, entry points to the centre are generally well defined by a threshold (usually open space), and streets or other connections are reflective of desire lines. The street types are appropriate to context and desired character, and street blocks proposed provide permeability, walkability, and also robustness for a range of built form, reflecting the characteristics and values of a traditional country town.

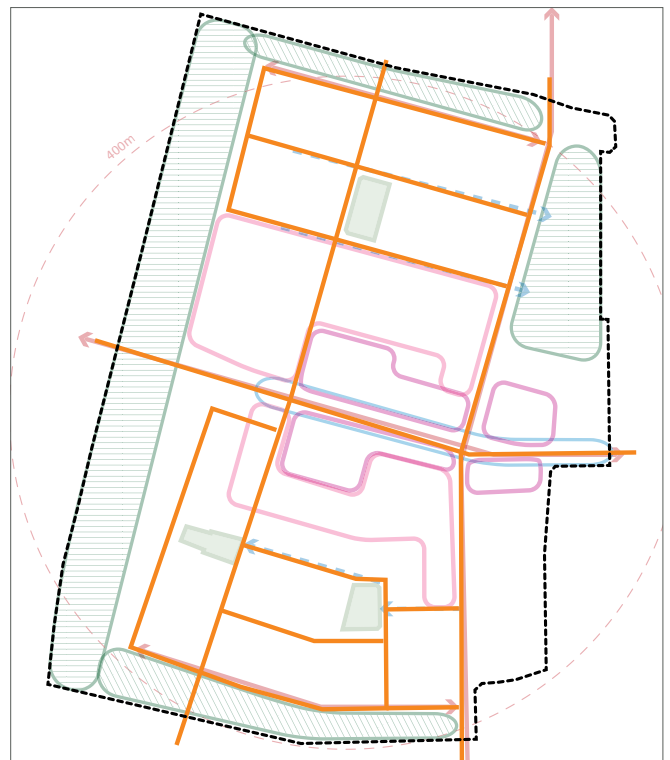


Figure 23: Street Network



Residential

The residential land in the ACP area is generally located outside of the main street and other commercial precincts (although residential uses are permissible in these precincts). The residential land provides the immediate walkable catchment for the centre, and can offer a range of living options.

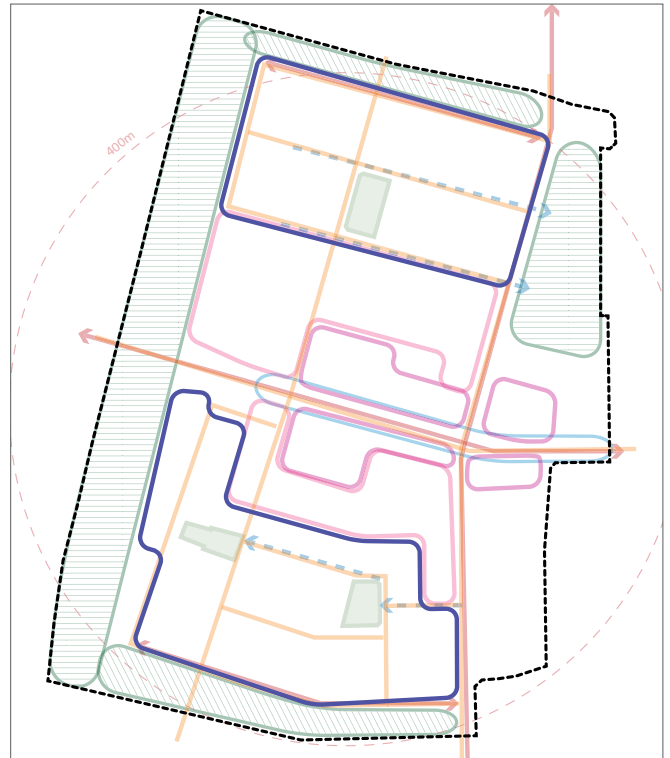


Figure 24: Residential



Detailed Design Concept

Ultimately the design proposed is reflective of a range of site-specific influences and opportunities, policy guidance, design imperatives, and a desire to develop a “country town” atmosphere, which necessarily includes a strong sense of community. The principles underpinning the design response, and careful consideration of the mix and distribution of uses, will deliver an attractive character and environment for the local community. Beyond the design depicted, the following additional details are discussed further in the remainder of the ACP.

Built Form, Diversity of Housing Density and Stock

Across the town centre, a range of built form is proposed that is visually interesting, functional and practical, reflective of the intended character, and that contributes to the public realm. Where possible, larger format stores are sleeved by smaller stores to break up building bulk. Building height along the main street provides an edge and sense of distinctiveness. A range of housing reflects the increasing diversity of Australian households. Variety is proposed in every stage of development of the centre. Similarly, the proposed built form allows for choice for retail and commercial uses, assisting local businesses to establish and providing for a range of uses expected in a district centre.

Public Realm Design

The design of the public realm, and in particular streets and open space, is intended to promote use, enjoyment and interaction. Tree retention and planting is an important element for both streets and parks. These spaces will also provide opportunities for a range of community events. This ensures that the community focus provided by the town centre is not solely based on retail uses, but also on community, recreational, experiential and a variety of other uses.

Precincts

From these design responses, the town centre design developed into areas that share land use mix, built form and public realm attributes. These are formalised into precincts in Part 1 of the ACP. This approach will also be reflected in built form and public realm design guidance. Ultimately this will provide for distinctive character areas, whilst still allowing an appropriate mix of uses across the town centre.

3.2.2 Key Outcomes

There is an estimated market potential for development between 20,000 and 31,000 square metres of non-residential uses within the Whitby District Centre. There are a number of similarities to the growth patterns of district centres (and larger regional centres) in Perth. For the most part, these centres function as single supermarket-anchored centres in early stages until there is sufficient capacity to accommodate an additional full-line supermarket and a DDS.

The projected non-residential floorspace includes shop retail, other retail, office, other commercial, civic and community uses. In total, approximately 1000 jobs are projected in the centre, providing a substantial boost to local employment and economic development.

The minimum residential yield expected from the centre is 592 dwellings, provided as a diverse mix that offers housing choice at every stage of development of residential land in the centre, and complementing residential development elsewhere within the Whitby estate. These dwellings are proposed across 377 lots, recognising the role of grouped and multiple dwellings in offering a variety of options, as reflected in the Illustrative Masterplan in section 3.10.

These projected outcomes, and the rationale underpinning them, are discussed in further detail in subsequent sections of the ACP.



Figure 25: Detailed Design Concept





3.3 Activity

A key focus of the centre will be to activate the main street. In addition to an appealing and attractive public realm, this is achieved by the right land use mix.

This section addresses the various land uses and activities in the centre grouped into three categories of uses: commercial (including retail and other), community and residential. A diverse mix is proposed, in appropriate and complementary locations to bring the centre to life.

3.3.1 Land Use Mix

Assuming the centre reaches its full potential as a district centre, and non-shop-retail uses are attracted to provide an optimum diversity of uses, the envisaged land use mix would generally be in accordance with the following table.

TENANT / CATEGORY	ONE DDS AND MULTIPLE SUPERMARKET CENTRE	MULTIPLE SUPERMARKET CENTRE
Discount Department Store	6,500sqm	-
Supermarkets	9,500sqm	9,500sqm
Mini-Majors and Specialty Shops	6,000sqm	4,500sqm
Other Shopfront Uses and Pad Sites	4,000sqm	1,000sqm
Large Format Showrooms	-	-
Non-Retail Uses	5,000sqm	5,000sqm
TOTAL FLOORSPACE	31,000sqm	20,000sqm

More active uses, and in particular shop retail, would be expected to be located where there is the most pedestrian activity, which in turn would be located in pedestrian friendly environments. In this instance, the main street, properly calmed, would attract this activity. Lower intensity uses in centres often attract more car-based rather than pedestrian activity, so would be located elsewhere, often on streets that accommodate larger development footprints. Offices and other commercial uses will have a range of spatial and locational needs around the centre, and smaller local businesses, particularly those that are office-based, often prefer smaller spaces with lower overhead costs.

The mix of uses will evolve as the centre grows also. Initially, more uses will be convenience based as the centre is smaller in size and serving a smaller catchment. However as the catchment grows, the centre will develop in both size and complexity, offering a more diverse range of land uses.



3.3.2 Retail

In outer suburban markets, DDSs typically require a main trade area with at least 35,000 residents. In the case of the Whitby District Centre, the threshold may be larger given the potential for the Byford District Centre to accommodate a DDS in the medium term (prior to sufficient population levels in the trade area).

A full-line supermarket will generally endeavour to trade with turnover of at least \$30 million and this would generally require a trade area population of more than 15,000 residents, although the timing of a full-line supermarket for the Whitby District Centre will also be dependent on development decisions in Byford.

With increasing competition, conventional retail shopping centres working to these expenditure models will need to work harder to attract patronage. Retail space will therefore need to develop a distinctive, experiential element (for example as an advantage over online shopping). The curation of retail uses and local experiences will have a substantial impact on the location and layout of the centre. Properly executed, this can also reinforce the identity of a place for community – rather than solely commercial – benefit.

TENANT / CATEGORY	ONE DDS / MULTIPLE SUPERMARKET CENTRE	MULTIPLE SUPERMARKET CENTRE
Discount Department Store	6,500sqm	-
Supermarkets	9,500sqm	9,500sqm
Mini-Majors / Specialty Shops	6,000sqm	4,500sqm
Other Shopfront Uses / Pad Sites	4,000sqm	1,000sqm
TOTAL SHOP RETAIL	26,000sqm	15,000sqm
Land Area Requirements (excluding internal roads)	7.5 ha	4.5 ha



3.3.3 Other Commercial

As per SPP 4.2, the Whitby District Centre is expected to have a greater focus on servicing the daily and weekly needs of residents than higher order centres, or of a conventional district centre. A number of factors contribute to this shifted focus, including:

- Its relatively smaller scale population catchment compared to typical district centres,
- the role of the Mundijong town centre, and uncertainty as to whether it will be genuinely complementary in its function or will compete with Whitby
- The Byford Activity Centre, also identified as a district centre and, like Byford itself, more mature than the Whitby centre, and
- the future role of the Cardup Business Park, in particular in providing a range of larger format retail, showroom and bulky goods businesses as part of its mix of uses

The centre is expected to function initially as a local, then a neighbourhood centre until the surrounding catchment is sufficient to support additional uses commensurate with a district centre.

SPP4.2 stipulates that 30% of floorspace should be comprised of non-shop retail uses. This element of the Whitby district centre could be compromised by the nearby centres as described above.

This will likely comprise of shopfront offices, gym, medical services, childcare, tavern and community / civic uses. The second to fifth rows of the following table outline how the 30% non-shop-retail component of the centre, however it should be recognised that this is contingent on effective control of surrounding centres, and will be determined based on market need.

Specifically, the ability to deliver a higher mix of non-shop retail will be influenced by:

- The role of Cardup Business Park and its better locational attributes to supporting large format retailers which benefit from high exposure, large sites and freight access (effectively at the expense of providing these uses within the Whitby centre);
- The current role of the Mundijong town centre as the civic and community heart and unknown prospect of future civic and community uses being accommodated in the Whitby District Centre;
- The Mundijong town centre remaining primarily focussed on civic and community uses, rather than shop retail and other commercial uses
- The development of the Byford Activity Centre and regional (rather than district) employment role of this centre; and
- The provision or otherwise of a regular passenger train station in Whitby.

LAND USE	PHASE 1	PHASE 2	BUILD-OUT
	(APPROX. 4710 OCCUPIED DWELLINGS)	(APPROX. 14,910 OCCUPIED DWELLINGS)	(TRADE CATCHMENT EFFECTIVELY FULL)
Shop Retail	6,500sqm	14,000sqm	22,000sqm
Other Retail	500sqm	1,000sqm	4,000sqm
Office	-	500sqm	500sqm
Health and Community Services	500sqm	1,300sqm	1,300sqm
Other Non-Residential Floorspace	1,000sqm	3,200sqm	3,200sqm
TOTAL	8,500sqm	20,000sqm	31,000sqm



Although the centre is mixed use, the total spatial area allocated for commercial development is approximately 8.3 hectares. This is comprised of 6.1 hectares of space for shop retail uses (and associated elements, such as parking and servicing), and 2.2 hectares for non-shop retail and other non-residential uses. The Transitional precinct and any home based businesses are not included in this spatial calculation.

The centre will be a hub for local employment and social gatherings, with the centre estimated to support approximately 1,000 jobs at build-out.

The realisation of the district centre's potential, aspirations and objectives will rely on a long term cooperative partnership between land owners, State Government agencies and the Shire of Serpentine Jarrahdale.

Given the practical and potential constraints on the centre, government support and investment is critical to the economic potential of the district centre being realised and employment targets being achieved. Government will play a fundamental role in the district centre's economic growth and prosperity by:

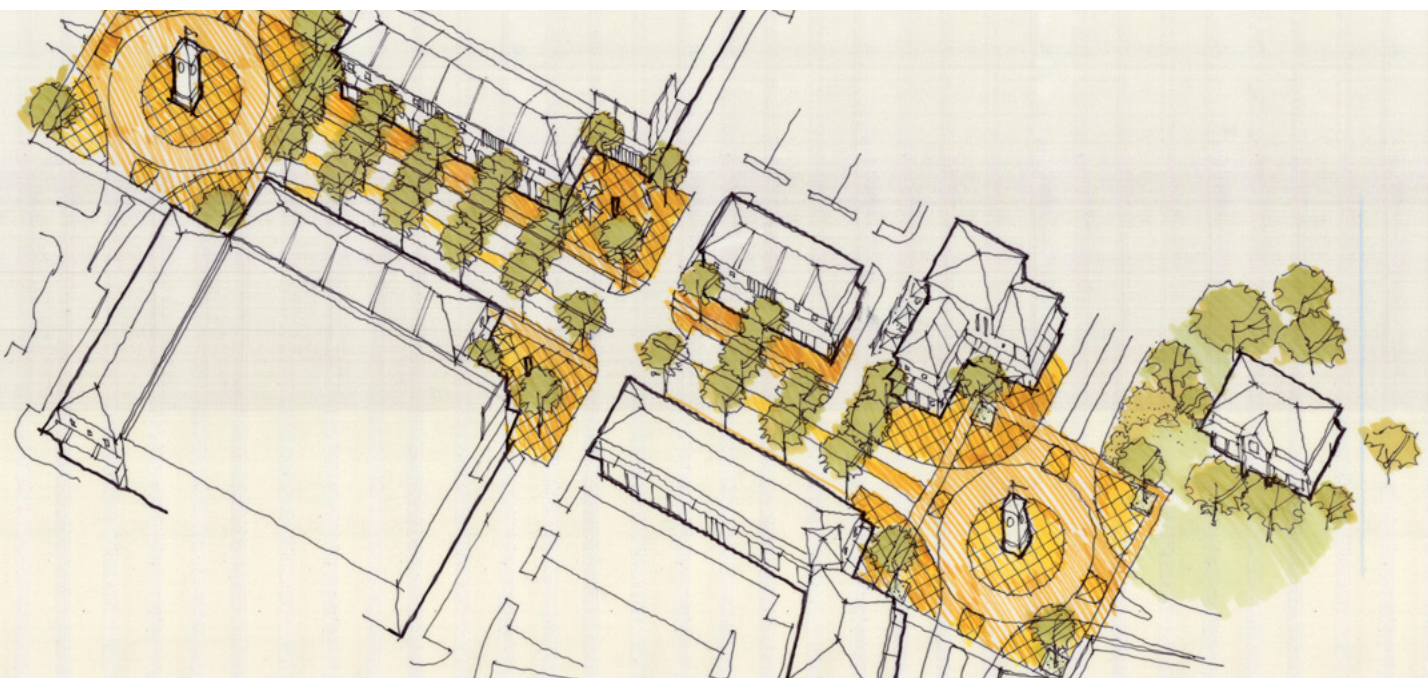
- Providing and administering a regulatory framework conducive to private sector investment, particularly in providing certainty (regulator);
- Delivering a range of community services (service provider); and
- Investing in enabling infrastructure that supports economic and business growth and employment generation (investor).

The absence of effective government investment and facilitation will significantly constrain the economic potential of the district centre and reduce its employment generation capacity. This is a risk to the centre ultimately being developed into a district, rather than neighbourhood centre.

To enhance the delivery of retail and non-retail employment, stakeholders should advance several strategies and actions noted below.

- Train station – support the attraction of a regular passenger rail station (district centres in Perth with a train station support, on average, an additional 5,200 square metres of non-shop retail floorspace).
- Visitation – promotion of the district centre as a regional visitor hub through events and development of recreation, entertainment, leisure and retail amenities.
- Home-based employment – facilitation of home-based start-ups and small businesses to locate within the district centre, including minimising planning and bureaucratic barriers for local businesses to establish and grow locally.
- Education – support the attraction of private education providers to the district centre as well as co-working facilities.
- Civic uses – support the attraction of civic and government uses.

Figure 26: Whitby Main Street Public Realm Concept





3.3.4 Community and Cultural

Community and cultural uses are an important component of a district centre. In addition to providing municipal services and support to residents, they often serve as places for the local community to make connections and strengthen.

Like commercial uses, different civic and community uses attract different levels of activity and should be located accordingly around an activity centre. In detailed design, the location of community and civic uses have been carefully considered, including consideration of staging and organic growth, like retail components of the centre.

The open space at the eastern end of the main street provides an opportunity to meet and recreate in an open setting convenient to many other activities, including larger events. This is recognised in the design, with space allocated for a community building (such as a library, a hall, meeting space, or a combined facility) and is associated with space for adjacent outdoor community events, for example outdoor movies, community markets and other major local community events.

With the intent to develop this space as a community focal point early, buildings may be used for other purposes in the interim, before a full-time community use presence is established, including use as an information and sales office for the estate.

This way, the building and surrounding open space can be a major focal point for activity from early in the life of the centre.

Although a commercial operation, another community use that can attract activity, especially in developing estates, is child care. These uses often need safe, easy access and are often best located with other uses, to enable a single trip to serve multiple purposes.

Recreational space is also an important community asset. Its design should be suited to its context, offering a variety of opportunities to a range of users. In the Whitby town centre these opportunities can include:

- Spaces for larger community events (as discussed above)
- A destination play area attracting younger families,
- Social and recreational areas for older children or teenagers,
- Native green spaces that encourage exploration and appreciation,
- Picnic and BBQ areas, and
- Linear connections that encourage cycling, walking and running.

Although the public realm and open space is described elsewhere in this report, all of these elements encourage community interaction and build social capital.



3.3.5 Residential

Locating residences near Whitby town centre enables the centre to be an attractive and active hub for a longer period of each day, and (with a well maintained public realm) promotes walkability, bringing more life to the street and reducing demand for car travel and parking.

The mix of residential development proposed must be balanced, to ensure density is appropriate for its location, but also to avoid a centre being developed, surrounded by undeveloped space until higher density is considered an appealing option for those buying in the Whitby estate.

The minimum requirement for a district centre under SPP4.2 is 20 dwellings per gross hectare within 400m of the centrally located transit node. This translates to a yield of 802 dwellings within the ACP area.

The ability to meet this generic requirement is substantially constrained by site specific factors. These include:

- the presence of open space in drainage corridors along the northern and southern edges of the ACP area,
- space for additional regional infrastructure, including additional space for a batter and ramp for the rail crossing,
- wetland and acoustic buffers to the west, and
- locally significant bushland to be retained to the north-east.

The factors outlined above amount to approximately 10.5 hectares of land unable to be developed upon.

In addition, a substantial area of land is required for the commercial and retail land uses themselves, which form the heart of the centre. Overall, of the 40.1ha land within the Whitby estate zoned Urban within 400m of the public transport node, approximately 21.3ha of land is available for dwellings, other open space and streets, and only 10.1ha remains as nett area for residential development. In comparison, a typical, conventionally designed district centre with moderate constraints would include over 29ha of nett developable area. Consequently, to achieve the minimum gross density requirements, an average nett density of over 79 dwellings per hectare, or an average lot size of 126sqm, is required. For a typical district centre, this gross density requirement would result in an average lot size of 291sqm (or about 34 dwellings per hectare).

This nett density outcome results in a range of dwellings which is extremely difficult (if not completely unfeasible) to deliver and will have a number of detrimental impacts on the centre. Most notably, the centre and its catchment will take longer to develop, as the centre and estate will need to sufficiently mature to a level for higher density to be appealing. In effect this delays residential development, leaving vast areas of the centre undeveloped for extended periods, which in turn affects the car dominance of the town centre, and level of activity and life on the street. For this reason, ideally the residential catchment would be developed in parallel with the centre itself, rather than lagging many years behind.

Within SPP4.2, the main policy objective regarding residential density (in Part 4: Policy Objectives) is to "Increase the density and diversity of housing in and around activity centres to improve land efficiency, housing variety and support centre facilities."

Addressing this objective is inherently centre-specific. Further language in the policy allowing for contextual response to residential density and diversity can be found in clause 6.2.3 (1), which states that "Activity centres should be coded under the Residential Design Codes, applying activity centre and built form-based controls to enable housing development that complements the desired scale and intensity of other development in the centre."





Based on the natural and physical limitations outlined, the resultant reduction in the land within the ACP area that is developable (i.e. nett developable area), and the identified impacts of strictly adhering to the policy requirement, it is appropriate that the gross density requirements be revised, and the 10.5ha of constrained land be removed from gross density calculations.

The gross remaining land within the ACP area, being 29.6ha, equates to a yield of 592 dwellings at twenty dwellings per hectare. This would in practice be difficult to achieve but could eventually be delivered, accounting for maturity of the centre and its catchment over time, and ensuring amenity is well distributed and maintained in the centre.

It should be noted that this revised target would remain a minimum, and could be exceeded should it be warranted by demand. The target is a “floor” not a “ceiling”. Permissibility of residential development throughout the centre, and density ranges proposed, will allow for the minimum to be exceeded should there be demand to do so.

This would still deliver substantial diversity and housing choice within the Whitby town centre. A range of densities have been proposed, from R30 to R80 with the prospect of additional density depending on a future train station at Whitby. This range of density translates into diversity at every stage of development of the centre, and complements the range of dwelling types and densities available elsewhere in the Whitby estate.

A detailed indicative breakdown of density and dwelling mix within the ACP area, as reflected in the Illustrative Masterplan, is as follows:

R-CODE OR TYPE	TYPICAL WIDTH	TYPICAL AREA	DWELLINGS	LOTS
R30	10m+	300sqm+	41	41
R40	9m	270sqm	40	40
R50	7.5m	225sqm	77	77
R60	6,6.5m	180sqm	116	116
R80	4.5,5m	150sqm	64	64
Duplex			22	11
Triplex			21	7
Grouped Housing Sites			19	4
Multiple Dwelling Sites			192	17
Total			592	377

At an occupancy rate of 2.2 persons per dwelling, which is considered appropriate for medium and higher density development, the ultimate residential population within the ACP area is projected to be approximately 1300.

It should be noted that the design offers ample opportunity to further increase density if required. The street block design in particular is deliberately robust, to enable increases in density with minimal design implications. Similarly there are no servicing implications or impediments for pursuing higher density in the future.

Finally, the approval period for an activity centre structure plan is ten years, after which it must be reviewed. Therefore there is an ability (and obligation) to review the plan and proposed densities regularly, and adjust requirements and goals accordingly.

In summary, the ACP area is subject to a number of constraints that are not factored into standard calculations and therefore do not provide concessions for reducing density requirements. This results in an unrealistic nett density requirement for the centre. However there is flexibility in SPP4.2 to consider site-specific factors when setting the minimum density requirement, which in this case is considered justified. There may be opportunity to exceed the minimum requirement, and urban structure is sufficiently robust to allow for this. There is also opportunity for regular review of density targets. Accordingly, removal of 10.5 hectares from the gross area for the purpose of density calculations is considered justified.



3.4 Access and Movement

The vision for Whitby town centre is to create a healthy, instinctive and welcoming community that puts people first. The access and movement strategy is intended to facilitate this by creating a connected, intuitive and efficient network for all modes of travels.

The strategy recognises the critical role of private vehicle travel in the centre while aiming to better manage adverse impacts in places where pedestrian priority is critical to Whitby's urban quality and liveability. The strategy aims to establish the attractiveness of walking and cycling from day one and position these modes at the top of the transport hierarchy.

Locating bus stops on the Main Street, developing a connected street network and promoting safe, walkable streets demonstrate the importance of a balanced movement network to the success of Whitby town centre.

3.4.1 Pedestrians and cyclists

Figure 27 depicts the proposed active transport network for Whitby which focuses on promoting walkability and permeability through the centre.

The proposed active transport network in the centre includes:

- Footpaths on both sides of all streets with minimum 1.5-metre widths;
- Crossing facilities in appropriate locations;
- Median treatments along more significant routes (Skyline Boulevard and main street) to provide for two-stage crossing movements; and
- A recommended maximum intra-centre speed limit of 40kph suiting safe pedestrian activity.

Cycling will be promoted along quiet access roads with relatively low volumes of anticipated traffic. Dedicated cycling infrastructure will include a network of recreational shared paths linking public open spaces around the centre as well as supporting wider regional cycle connections along the rail reserve to the west of Whitby.

'Copenhagen-style' cycle lanes are proposed between the two roundabouts along the main street. These lanes are located between the footpath and on-street parking, and separated from the latter by a kerb buffer. These facilities befit a district centre environment while outside the centre, the Copenhagen lanes transition to on-street cycle lanes. The deliverability of the Copenhagen lanes will be confirmed during detailed design once the interface with lot access and the proposed bus stands is confirmed. The alternative will be either continuation of the on-street cycle lanes and/or generous shared paths.

Provision is made also for shared paths along the main street outside the centre connecting with the wider residential development in Whitby. A further shared path will be installed along the western Neighbourhood Connector road linking residential precincts to the north and south to the commercial and retail land uses. This facility will provide accessibility to the recreational shared paths and potential future train station.

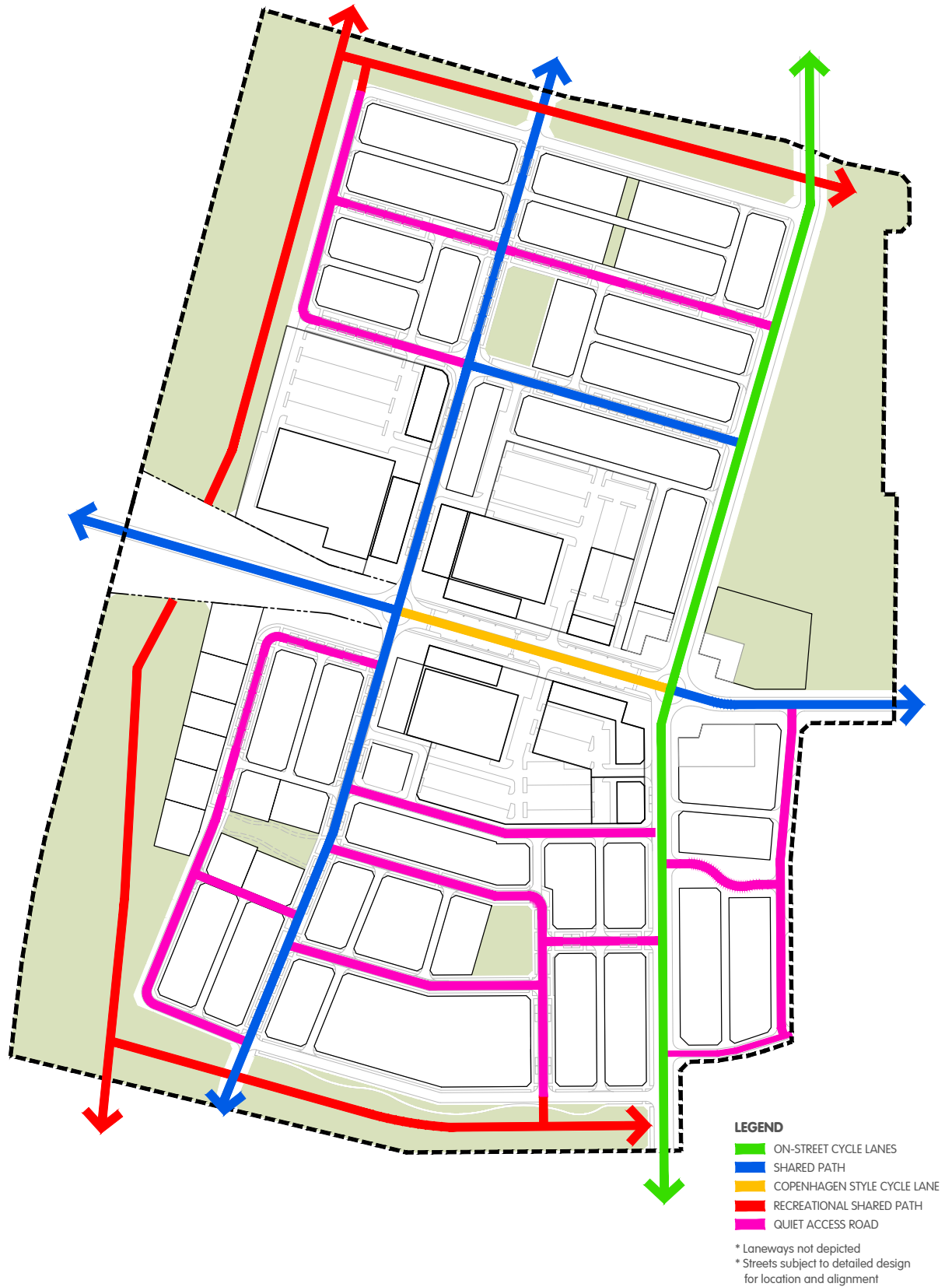
On-street cycle lanes will be provided along Skyline Boulevard as a continuation of the existing infrastructure provided to the south. This means that there is choice for cyclists in terms of using on or off street facilities for north-south travel, depending on their ability.

Cycle parking and end-of-trip facilities for commercial uses should be provided as part of developments in the centre. Schedules 1 to 3 of Local Planning Policy 4.15: Bicycle Facilities Policy specify requirements for facilities for different land uses in the Shire of Serpentine-Jarrahdale. Cycle parking provision should meet the preferred requirements rather than the minimum requirements for all uses except residential. Typically, cycle parking and end of trip facilities are included in individual dwelling units and there should not be a requirement for additional shared facilities as part of new developments.





Figure 27: Active Transport





3.4.2 Public Transport

Figure 28 identifies the interim arrangements for bus services to connect into Whitby town centre with the aim to raise the profile of bus based public transport from the start of the development process. The connection via Skyline Boulevard and then west towards the South Western Highway supports the intention that the residential component of the ACP will start in the south east corner and move west and north over time.

Detailed discussions with Transperth would be required at the appropriate stage to determine service frequencies but bus services could support the early stages of development within Whitby by connecting Mundijong town centre to Whitby via Kiernan Street and then northwards via the South Western Highway.

Figure 18 highlights bus routes will ultimately serve Whitby via the main street. The ACP allocates prominent space for bus stops on main street to maximise connectivity. With the majority of the centre being within a 400m walk distance to main street this creates the desired safe and direct access to public transport services. Bus stops are located between designated pedestrian crossing points which will be designed to reflect the priority for pedestrians (raised pedestrian crossings, medians for ease of crossing and the low speed environment) through the heart of the main street precinct.

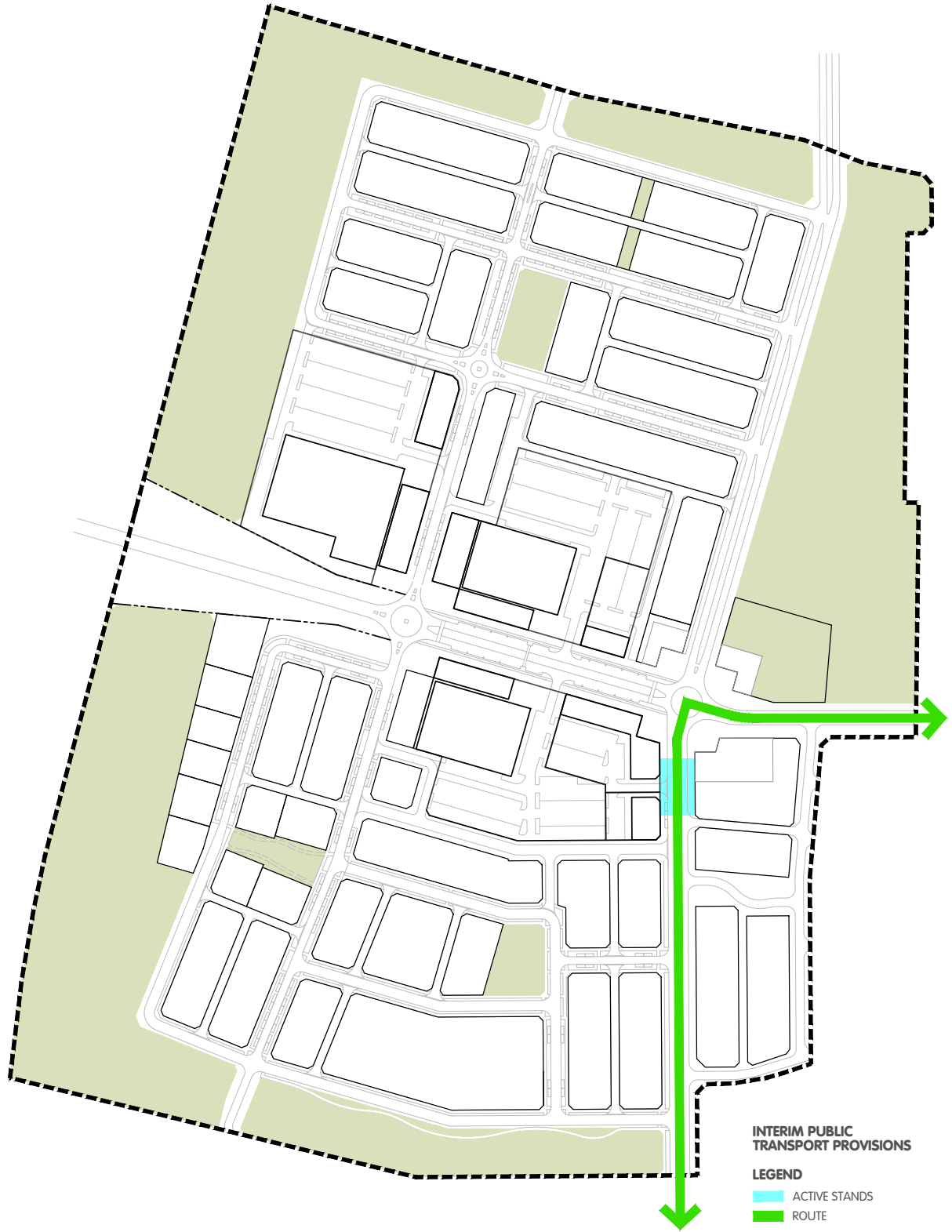
Additional provision is made for a bus layover stand on the western neighbourhood connector to allow the flexibility for future bus services to terminate in the Whitby centre. This allows the local road network to be used for services to recirculate, by making use of the roundabouts along main street, without the need for additional transport infrastructure.

The South Metropolitan Peel Sub-Regional Planning Framework (Towards Perth and Peel @3.5 million) includes consideration for a 'transit priority route' between Byford and Mundijong and potentially, and the Shire's draft Local Development Strategy anticipates that by 2050, the Armadale rail line would have been extended southwards to Mundijong and an east-west passenger rail line constructed to Rockingham. Whilst these schemes are not committed the proposed ACP is designed not to preclude such development in the future.

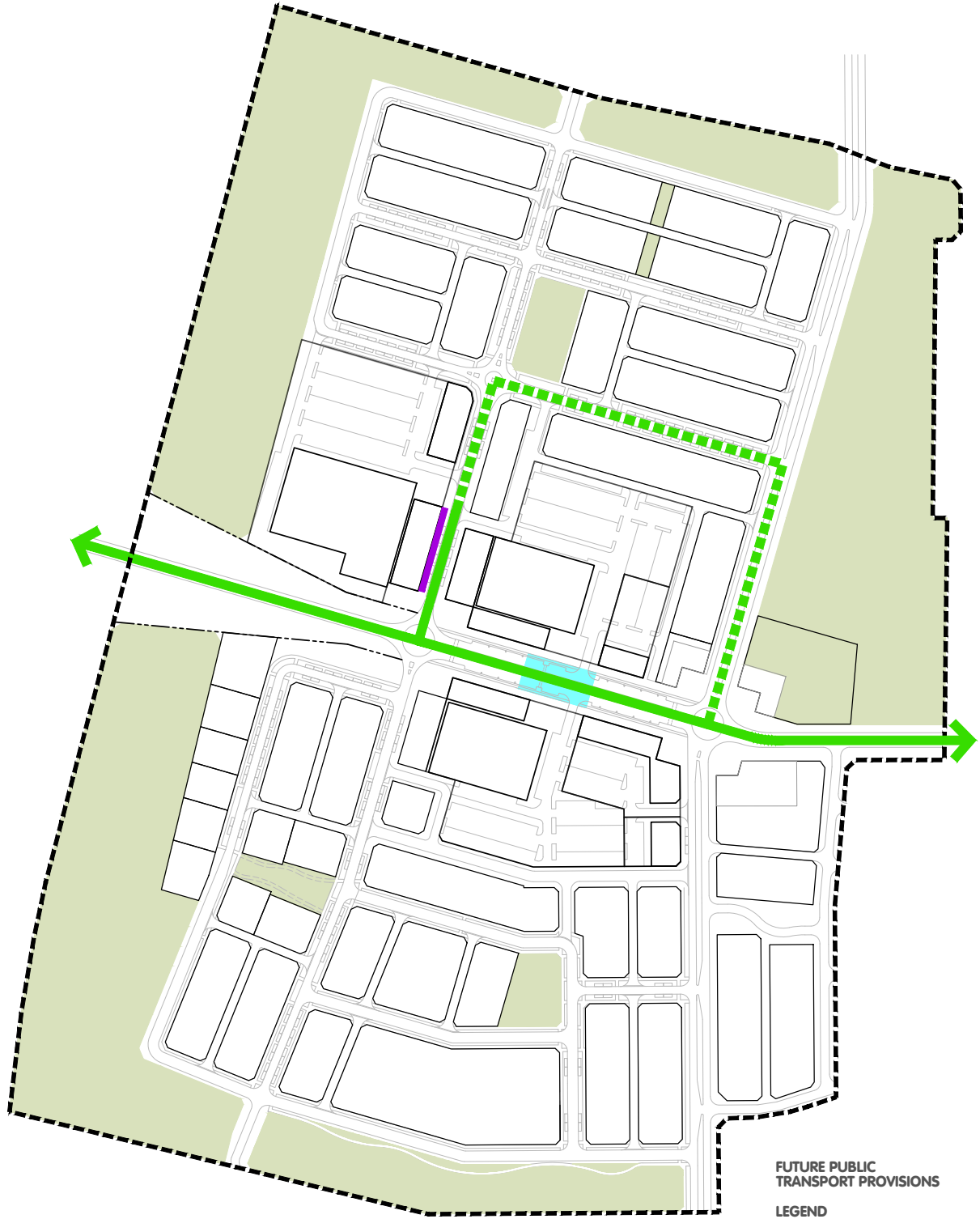




Figure 28: Interim & Ultimate Public Transport Provision



INTERIM



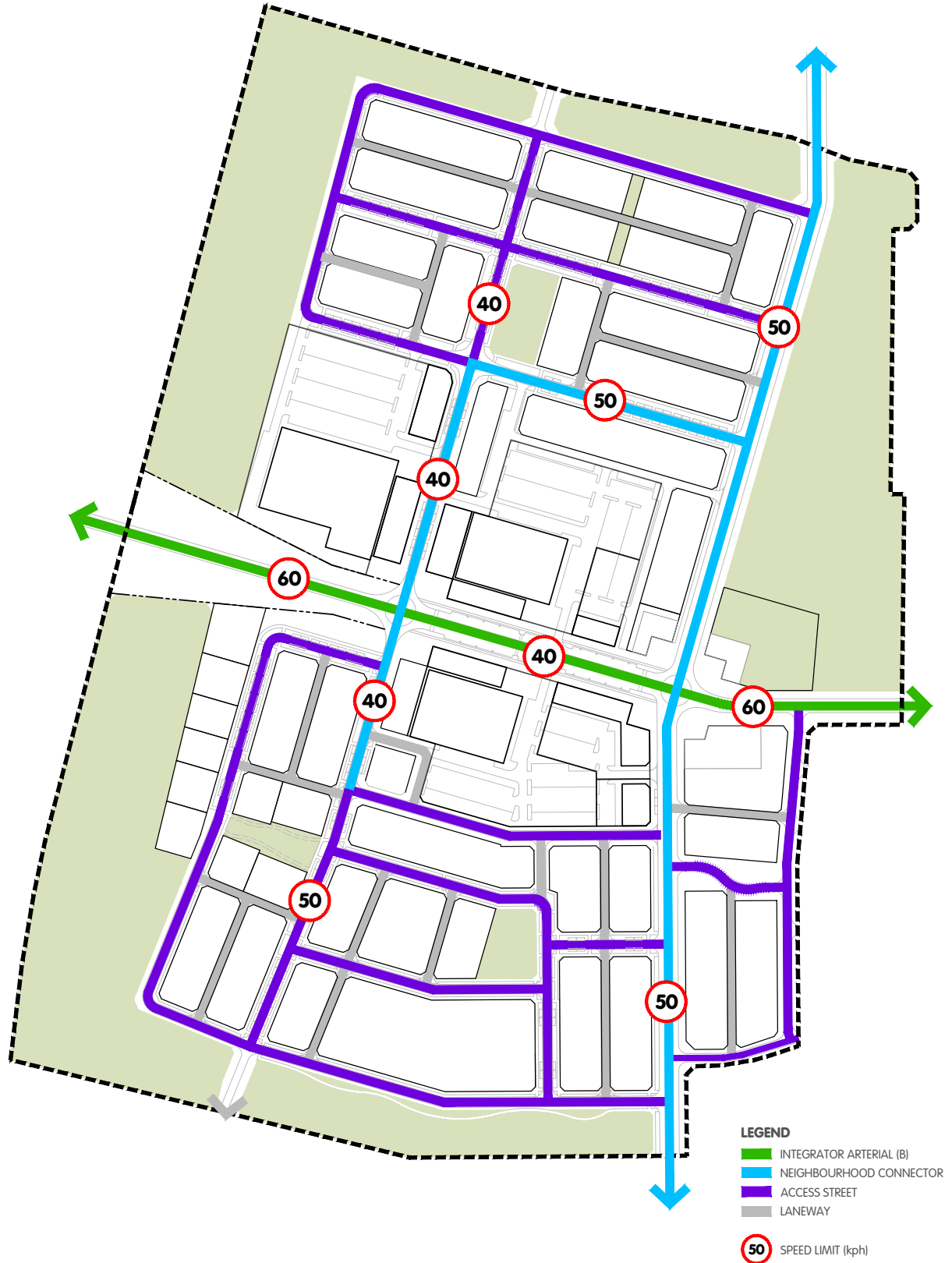
**FUTURE PUBLIC
TRANSPORT PROVISIONS**

LEGEND

-  ACTIVE STANDS (1 each direction)
-  LAYOVER (1)
-  ROUTE



Figure 29: Road Hierarchy and speed limits





3.4.3 Private Vehicles and Parking

The centre is developed to include a hierarchy of streets providing local and district access. Figure 29 depicts the road hierarchy and intended road speeds throughout the centre. To reflect the form and function of the Main Street and Commercial precincts the desired vehicle speed is 40kph. The remainder of the road network centre will typically operate a maximum speed of 50 kph.

A connected network of local streets distribute movement throughout the centre supported by a distributed network of on street and public parking locations. Entrances to new car parks are to be minimised, and where possible, access points are to be shared amongst development.

Street sections have been developed in line with Liveable Neighbourhoods guidelines but also recognising that flexibility is required within the road hierarchy for the east west connection to potentially support higher traffic volumes in the future. High level traffic modelling indicates that the provision of single carriageways is sufficient to accommodate the estimated traffic flows for the ultimate development build out, but the main street proposed reserve width allows for a four lane street in keeping with designs made available to the proponent and project team. As such roundabouts are appropriate treatments at the two main intersections in the centre of Whitby.

Vehicle entrances to developments along main street are proposed to be limited to minimise conflicts with the regional function of this road. Access to public parking lots are provided in the form of an unsignalised intersection with designated turning pockets. Remaining vehicle entrances to commercial sites will be from the two neighbourhood connectors.

Kerbside parking provisions are recommended along all streets in the centre; both to help activate the street and enable robustness in terms of anticipated, increasing utilisation by ride-share and taxi services. On-street loading and temporary parking needs can also be established and provided for as part of more detailed planning, once there is more clarity regarding prospective land uses and non-residential tenants.

Kerbside parking along the main street should be retained in the medium- longer-term although the facilities may need to be removed if additional travel lanes become necessary. Alternatively, this parking may be managed temporally enabling kerbsides to function as clearways during network peaks.

Whitby Activity Centre will rely on a reasonably significant proportion of arrivals by car; however, the agglomeration of land use, which will increase over time, will present strong opportunities for sharing of parking assets, internal trip capture (e.g. multipurpose trips by visitors to the centre) and passer-by trade. In the future, there will also be a basis for Council to supply public parking rather than requiring new parking supply associated with new builds. Furthermore, practical demands for off-street parking are likely to change given evolving mobility trends and technology.

Ultimately, specific land use will be resolved through specific Development Applications. Parking supply and management will be resolved through these same processes; however, the principles for supply and management should be established now.

As a broader principle, minimising parking provision is a worthwhile aim for the centre, with at least three direct benefits for sustainability:

- i. Reducing parking demand, and in particular the potential for induced demand
- ii. Less space for parking makes the centre more compact and walkable, including for surrounding residents
- iii. Reduced heat island effect from parking areas, that are often finished with dark asphalt

In line with the intent of the Parking Guidelines for Activity Centres the following principles for parking supply and management in the centre are recommended:

- Permitting a maximum of one bay per 20 square metres floor area for supermarkets and shops rather than the one per 12.5 square metres specified in TPS No. 2;
- Establishing other parking requirements as maximums;
- Proponents to have the opportunity to demonstrate realistic needs based on first principles, considering variables such as hours of operation and constituent land uses (aligned partially with Clause 7.8 of TPS No. 2);
- Permit discounts for demonstration of likely passer-by custom;
- Crediting on-street car parking to be credited to adjacent or nearby land uses;
- Parking supply to be integrated with other parking assets rather in stand-alone and independent parking areas, to encourage efficient use;



- Parking bays may be credited to more than one land use where it can be demonstrated that those land uses are complementary, or where hours of operation will not result in undue conflicting demand for parking
- Parking and access to parking to be located away from pedestrian and cycling desire lines, and public transport operations;
- Setting dwell-time limits on on-street and off-street non-residential parking bays to encourage churn; and
- Monitoring parking use over time and reconsidering parking minimum and maximum requirements as the centre matures. A review of this nature is recommended no more than five years after the opening of the first non-residential tenancy and every five years, thereafter.

These principles can be formalised and applied in practice through adoption of a parking strategy for the centre, which provides clarity and certainty for the centre and its stakeholders.

3.4.4 Freight and Servicing

Lot-specific servicing requirements will be resolved during subdivision and development application processes. Broadly, direct lot access is envisaged from all streets within the centre, including the East-Connector in accordance with the preferred network plan. However, generally servicing areas for tenancies will be away from the main street, to ensure amenity is protected and safety is maintained.

The development of the ACP has positioned those uses expected to generate greater freight trips within Main Street and the Commercial Precinct within direct access to the new main street and adjoining neighbourhood connectors.

3.4.5 Integrating Activity and Movement

The access and movement strategy recognises the characteristics of the five precincts within the ACP and concentrates on promoting a balanced movement network throughout the centre. The focus is to prioritise pedestrian movement and comfort in the detailed design of streets, including the provision of shade tree planting, ample footpaths and public seating nodes.

The Main Street and Commercial precincts are intended to generate the most community activity with significant and active ground floor retail uses. Pedestrian and cyclist facilities are promoted to facilitate local journeys, often without requiring use of the new east-west integrator arterial.

Bus stops are also located in the prime location within the Main Street precinct, making the entirety of the centre within a 400m walk distance to public transport services.

On street parking and public parking lots are provided throughout the centre to help distribute vehicle traffic and support local business activity.

Permeability is achieved within the activity centre through a combining dedicated walking and cycling infrastructure with the promotion of quieter access streets within residential zones.

Creating legible wayfinding through signage and public art impositions at key intersections to announce arrival points will also serve to integrate the transport network into the character of the Whitby activity centre.

An integrated approach makes best use of all infrastructure, maximises walking and cycling, and provide for a connected community.



3.5 Public Domain

This section addresses public open space (POS) and streets, which together comprise the public realm, and how they contribute to deliver character and functionality that maintains the appeal of the Whitby town centre.



3.5.1 Main Street and Civic Space

The main street will be the ‘heart’ of Whitby. It will have a high level of amenity incorporating elements such as civic squares, informal and formal event spaces, community and public art, alfresco dining and outdoor café opportunities, shaded walkways, extensive lighting (to allow activities to be extended into the evening), market day courts, dense shade canopies consisting of exotic street tree planted in well-defined avenues.

Street trees and placement of street furniture will establish a sense of demarcation between pedestrian and vehicle ways to promote safety and comfort along streets and establishing a comfortable and attractive public realm that is functional and enjoyable regardless of the time of year and seasonal climatic variations. The main street will be wide enough to include a central tree planted median and to reflect the different adjacent land use.

Key design outcomes include:

- The creation of an attractive pedestrian realm: creating a public realm that is supported by main street design principles and is well structured, comfortable and attractive with appropriate microclimate control measures.
- Comfortable and solar passive: to provide an outdoor space that is attractive to pedestrian use all year round.
- Diversity in character: providing a variety of experiences through design materials and textures to assist in navigation.
- Variety of civic spaces: providing opportunities for meeting and interaction within the public realm through a variety of civic places, squares, parks and tree lined promenade.

These design outcomes are vital in creating urban spaces that people feel connected and drawn to, growing a sense of place and affirming local identity and connection to past history of the site.

The civic open spaces within the main street precinct will be integrated and connected to the main street with artwork and extensive use of seating, creating civic forecourts to buildings. Multiple and flexible spaces to allow such activities as alfresco dining and café activity, weekend markets, performance opportunities, and informal social meeting places.



3.5.2 Public Open Space

Linear Open Space

Linear open space will provide a necessary drainage function as well as provide visual amenity to the public realm.

With a high water table across the ACP area, surrounding lots and roads require fill to ensure suitable structural conditions for housing. Linear parks will therefore sit at a lower grade. This will ensure that drainage will flow towards these areas, and discrete treatment areas and conveyance swales will be incorporated along the length of the linear parks.

Linear parks and widened road reserves as well as serving an environmental and drainage function also provide an efficient means of supporting a legible cycle and pedestrian network. Which will be designed to encourage passive surveillance from overlooking residents in accordance with Liveable Neighbourhoods guidelines and "Designing out Crime" principles.

In order to address the requirements of retaining site topography and the principle of protecting existing trees and ecological linkages, the Whitby town centre plan includes conservation and buffer areas to the west of the site. The design intent of these spaces is to rehabilitate existing vegetation as well as incorporate existing stands of isolated trees and drainage alignments, retaining amenity. The park will include elements such as elevated boardwalks, sitting and viewing areas, interpretational signage.

Due to the requirement to convey stormwater reliably away from high use areas; a system of shallow conveyance swales will be created in the larger POS areas and broader sections of parkland. This system will seek to mimic pre-development flows, provide further treatment and enable upstream bio-filtration and recharge of the groundwater table, and provide an additional dimension of natural amenity.

Planting to consist of endemic species with a variety of tree, shrub, groundcover, reed and sedge species. Bank stabilisation will be incorporated into the design and a variety of tree species will be used to provide a diverse tree canopy. Treatment along the length of the stream will be dependent upon the width of the corridor and the engineering constraints. A conveyance swale will provide not only a viable drainage function but also a variety of ecological zones and restoration opportunities.

Vegetation and wetland values west of the site have been considered and retained through the placement of a linear public open space corridor along the western boundary. This corridor provides for appropriate wetland buffers (as outlined further below), and provides for a controlled and managed landscape interface between development and the environmental values within the adjacent rail reserve.

A Landscape Management Plan (LMP) will be prepared to support the subdivision and development of the linear POS corridor, including the Conservation Category Wetland (CCW) buffers, in line with the Integrated Landscape Management Strategy (ILMS) (Cardno and Emerge Associates 2011) prepared to support the Whitby LSP and this activity centre plan.



Neighbourhood Parks

The neighbourhood park is located in the north east of the Whitby town centre, intended to be a larger POS area catering for a larger population catchment and as a destination for visitors to the centre.

The landscape treatment of much of this space will be generally informal in nature and characterised by retained trees, and revegetated and native parkland plantings which encourage passive recreation uses. Localised areas of turf that cater for informal active recreation may also feature. This park consists of an area of retained remnant vegetation with a central built feature and playground. Path systems will link to the adjoining streets and to the linear POS network to provide safe and convenient access and movement.

Drainage areas may be required in these open spaces, and where provided will be landscaped treatment areas, serving a recreational and amenity function.

The southern end of the park, which is at the eastern end of the main street, will cater for significant community events and activity that reinforce the parkland as an important focus of the Whitby estate and district cell. It may be co-located with community facilities.

The extent of hardscape and the urbanity of the space will increase in proximity to the town centre providing a logical design transition between the areas of retained vegetation within the Local Natural Area and the adjacent community and civil space.

Local Parks

Local public open space (POS) within the Whitby town centre provides small intimate open spaces which provide resting places, shelter from the elements and help create a sense of place. Local POS within the Whitby town centre include informal play spaces, breakout turf areas, public art and hardscape.

The proposed local POS will provide attractive spaces that cater for a variety of active and passive recreation experiences will have a positive impact on the quality and efficiency of the public realm.

The treatment of the public open space and adjacent street environment will provide variety and interest to visitors and residents alike, with high quality paving treatments, public art and interface between built form and the public realm, helping to reinforce the centre's identity and purpose of each space.

Local initiatives such as community gardens may be considered with the local POS within the Whitby town centre where considered appropriate, as a means of using open space to create substantial social connection.





Figure 30: Public Open Space Typologies





Public Open Space Calculations

Areas of public open space proposed in the detailed indicative plan for the activity centre area as follows:

SPACE	POS TYPE	AREA
A	Linear	6664sqm
B	Linear	30,457sqm
C	Linear	33,029sqm
D	Linear	11,247sqm
E	Neighbourhood	34,152sqm
F	Local	2391sqm
G	Local	1511sqm
H	Local	1797sqm
Total		121,248sqm
		or 12.1248ha

The ACP area was included in public open space calculations for the Whitby local structure plan when approved, and is integrated with the local structure plan area. Accordingly, tracking of public open space provision within the ACP area is proposed to be undertaken with the overall estate open space calculations, rather than as a separate tracking process.

3.5.3 Other Streets

The street will become the principal means of integration for activities within the Whitby town centre in a safe and efficient manner. Internal streets throughout the Whitby town centre will have a contemporary urban character with appealing, highly integrated pedestrian amenities including pavements, seating, lighting, interpretive information, and closely spaced avenues of tree planting.

Streetscapes throughout the development shall incorporate a variety of treatments in response to the road hierarchy system. In all cases, landscape works shall incorporate tree planting in accordance with the accepted traffic standards. Treatments may include soft works such as street trees, smaller shrubs and groundcovers.

It is envisaged that the stormwater runoff from residential roads will be contained upstream mainly in a system of bio-retention basins distributed along road reserves and the linear open space network.

Tree species are yet to be allocated however it is anticipated that within public open space predominantly native trees will be used. It is proposed that species selections for streetscapes will also include species which reference the historic and cultural influences in the area. Deciduous exotic species historically used around rural homesteads will be used for major roads and civic areas to provide landmarks and promote legibility through the street network.

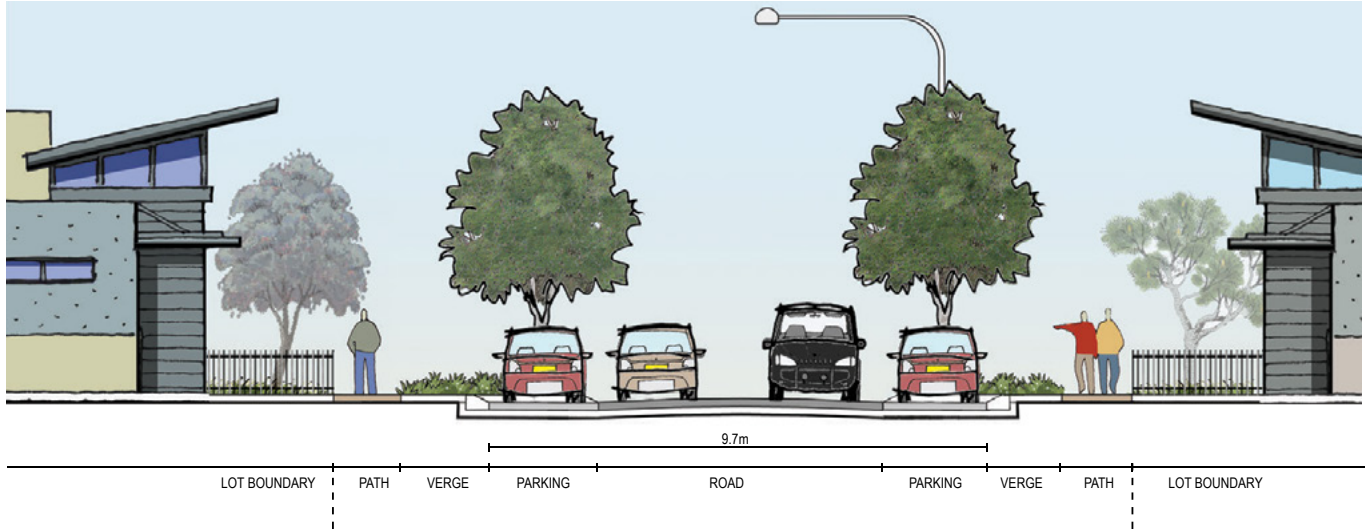
The following cross-sections are indicative only and will be subject to further detailed design at the subdivision stage. The streetscapes have taken into consideration the existing Whitby LSP and streetscapes constructed in stages 1 and 2 and provide a suggested approach for the incorporation of supplementary landscaping solutions within the Whitby town centre.

It should be noted that the Main Street sections shown are interim proposed designs only, depicting one travel lane in each direction. Indicative designs received from state government agencies depict an ultimate design with four lanes (two travel lanes in each direction) in a 36m reserve. It is acknowledged that a four lane design will be subsequently developed as dictated by growth and demand. The 36m reserve proposed ensures any future widening can occur.



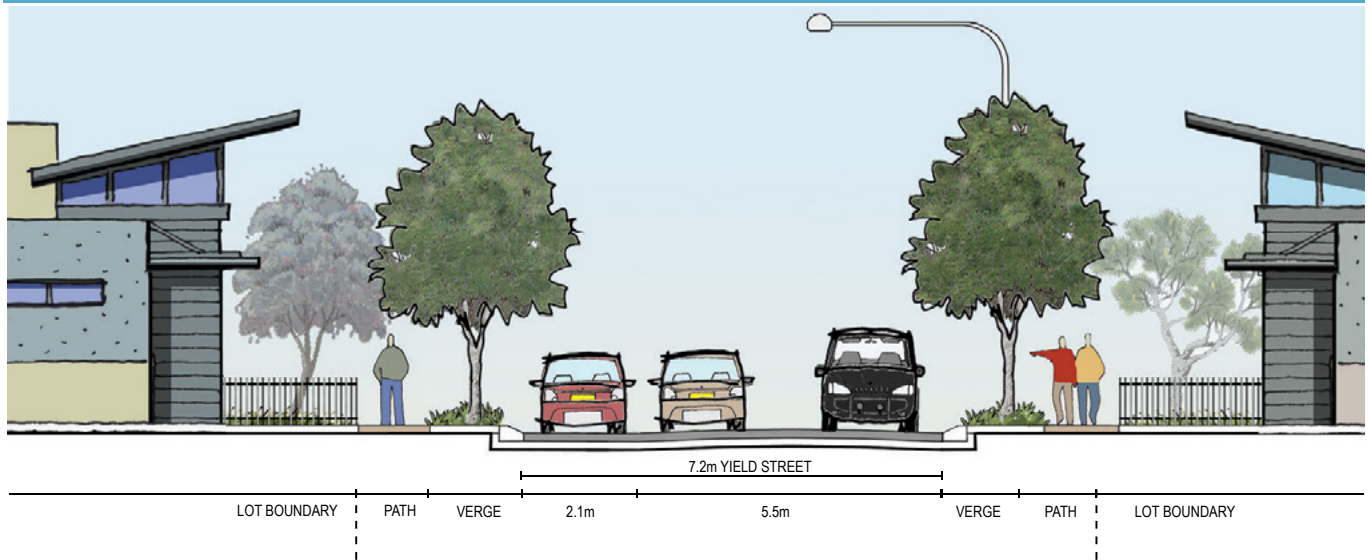
Figure 31: Street Sections

Access Street B - Up to 17.9m Road Reserve



Note: As per Liveable Neighbourhoods, verge width adjacent to public open space may be reduced to 1.0 metres

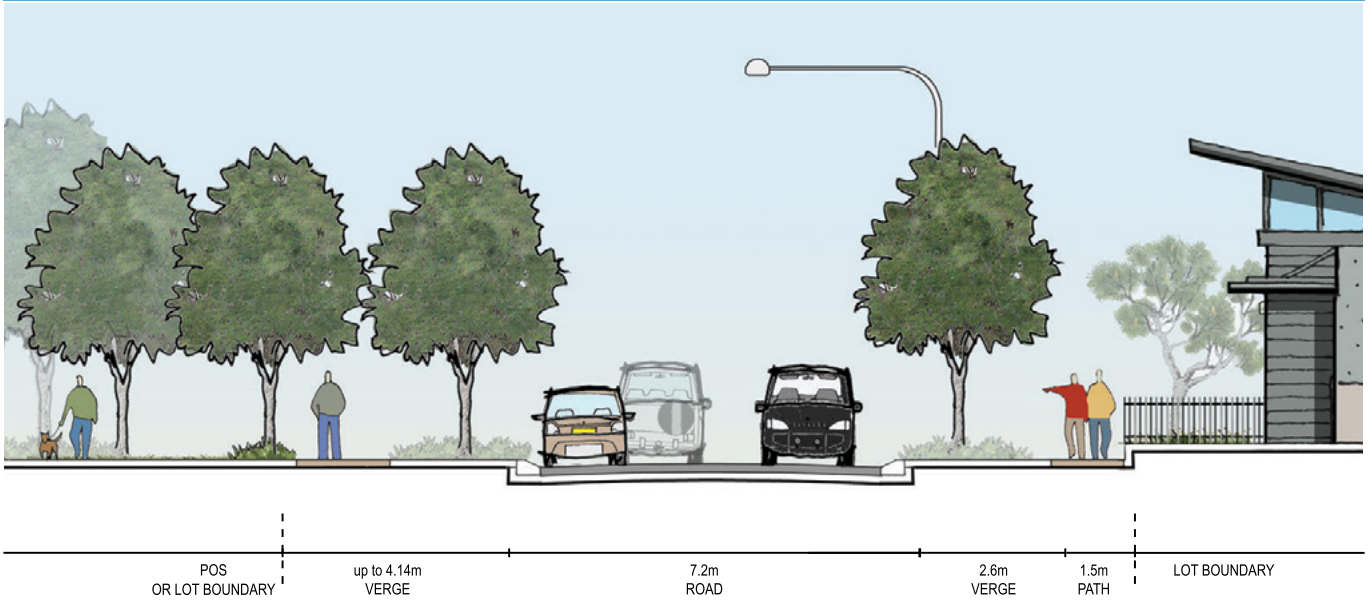
Access Street C - Up to 15.4m Road Reserve



Note: As per Liveable Neighbourhoods, verge width adjacent to public open space may be reduced to 1.0 metres

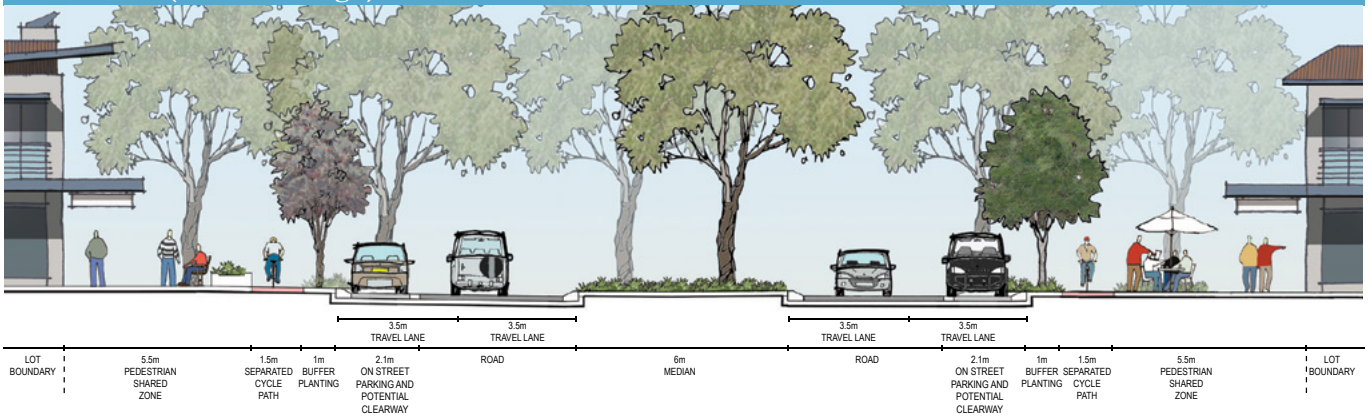


Access Street C (Yield) - Up to 15.44m Road Reserve



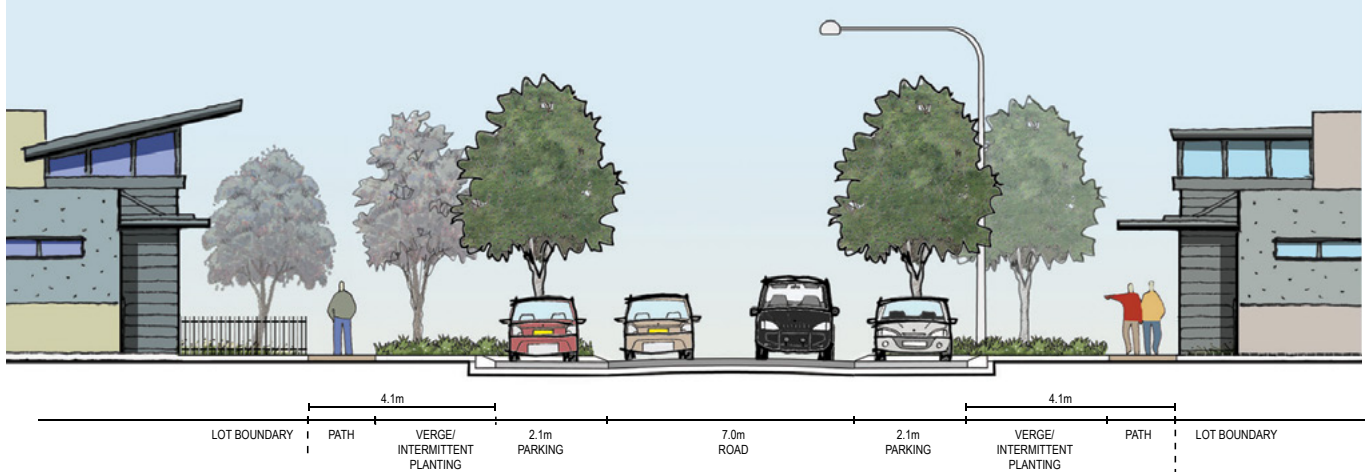
Note: As per Liveable Neighbourhoods, verge width adjacent to public open space may be reduced to 1.0 metres

Main Street (Interim Design) - 36m Road Reserve

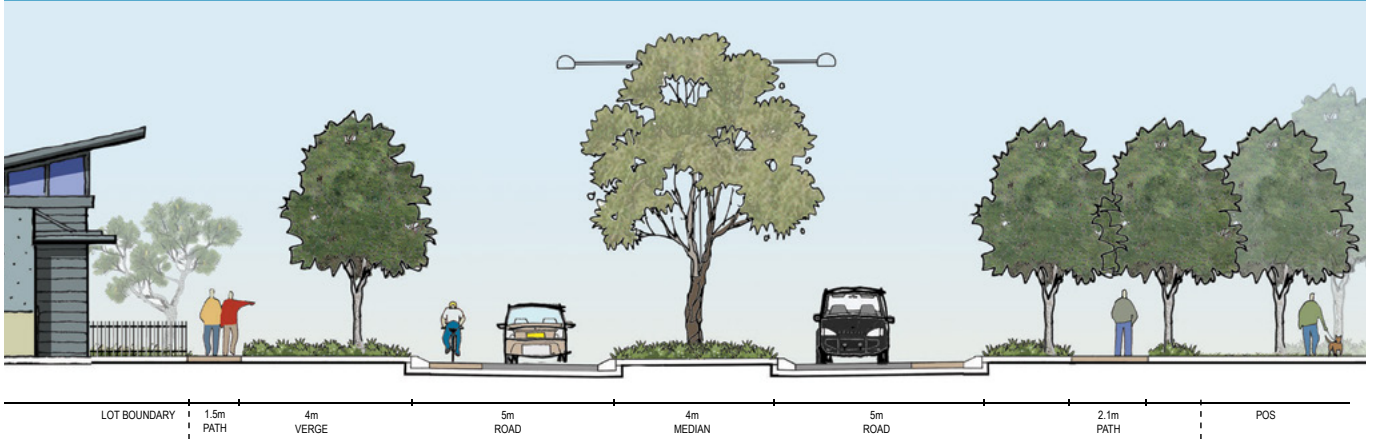




Neighbourhood Connector B - 19.4m Road Reserve



Neighbourhood Connector A - 25m Road Reserve





3.6 Built Form

Built form is an important element of any activity centre. It makes a significant contribution to the street, complementing and framing the public realm. Its design can encourage activation and engagement, and provide for flexibility and it makes a substantial contribution to the character of a place.

This section discusses the approach to built form by precincts, reflecting the approach to development control taken in Part 1 of this ACP, and the contribution it makes to the character of each precinct.

3.6.1 Main Street

The Main Street precinct will likely include building facades that are two storeys (or 7.6 metres) high, which visually frames the main street even if buildings behind the façade are only single-storey. Nil setbacks are encouraged along the main street also, to provide opportunity for shelter to pedestrians.

With larger format uses contemplated within this precinct (notably supermarkets), the bulk of buildings will need to incorporate an articulated frontage (or sleeved from public view) to ensure architectural interest and reflect a “country town” character appropriate to the most active part of the centre.

Buildings should present active frontages which will contribute to the life of the street. This includes glazing and, in some cases, will include alfresco dining. Ground floor residential frontages (except entries to upper floors) are discouraged.

On prominent corners, additional detail and features can add to legibility and identity for the town centre.

3.6.2 Commercial

The Commercial precinct, which frames the main street precinct, provides for complementary land uses, especially those commercial uses that are not suited to the main street. Consequently, the built form proposed can be a larger format, and can include more car-dependent uses.

Building height is encouraged in the Commercial precinct, but is not strictly stipulated. Even with a larger format of retail proposed, sleeving of bulkier buildings is encouraged where possible, to contribute to the streetscape and activity.

Generally frontages are active or potentially active, with direct visual contact provided from within tenancies to encourage engagement. This may be less important where offices or other non-retail commercial uses are proposed.

3.6.3 Transitional

The Transitional precinct is important as it enables growth to be accommodated organically, without substantial construction or disruption. This in turn represents a low barrier for local businesses to establish and fuel the local economy. It is therefore important that built form is robust, allowing for internal changes of use, especially between residential and non-residential uses.

Typically this precinct will feature smaller tenancies or buildings, which are appealing for smaller businesses (or live-work tenancies), which in addition to supporting local economic development and offers a fine grain character.

Buildings will be set back from the street sufficiently to enable some separation for residential uses, but remain appealing as future office, retail, café or restaurant space as the centre grows.

3.6.4 Centre Living

This precinct provides for higher density, mainly residential uses. This includes a range of building typologies, including small lot and terrace product (single and double-storey), grouped housing and multiple dwellings. Many typologies typical of the “Missing Middle” should be contemplated in this precinct.

The built form character is expected to include reduced side setbacks (typical of development on narrow lots), and some apartment complexes of three or four storeys. Apartment development should sleeve parking areas from the primary street and provide balconies that encourage engagement with the public realm and that also articulate the facade.

Grouped housing development should configure dwellings so they address all street frontages.

3.6.5 Residential

The Residential precinct is typical of medium density development, providing a range of typologies as either single house or grouped dwelling. Terraced or semi-detached dwellings will be typical of single house development, and a range of medium density grouped housing will also feature.

Smaller lots and a range of tenure will provide for natural variation, with architectural features encouraged to provide articulation and interest to the street. The intensity of design detail in this precinct will be commensurate with its quieter location, with substantially less activity than the Main Street precinct.



3.7 Sustainability and Resource Efficiency

3.7.1 Approach

The approach to sustainability responds to and builds on the sustainability principles set out in the Whitby Local Structure Plan.

Key sustainability principles and practices are expressed and achieved through the project's approach to planning and design, appropriate to and aligned with the objectives and intended character of each precinct, including:

- Promoting walkability with housing density around the centre, to reduce car dependence
- Retaining high value trees and bushland within the ACP area to provide biodiversity, water table, micro-climate and other benefits
- Generating a sense of community connection, inclusion and involvement.
- Providing a diversity of housing types and densities, to cater for different needs and lifestyle opportunities.
- Creating people-centred and pedestrian-friendly streets and public places.
- Enabling integration with any future rail station through transit-oriented design.
- Supporting healthy and active communities through creation and connection to diverse, accessible, and active and passive recreation areas.
- Facilitating development of the local economy and local employment by minimising barriers to establish businesses locally, reducing travel demand for nearby residents.
- Creating a distinct identity and character for the ACP which reflects and celebrates local history and the surrounding natural environment.
- Enabling more sustainable building and living practices through implementing and/or enabling more efficient use of energy, water and materials, where possible.

This section addresses how resource efficiency will be considered in planning and design, for built form and the public realm. Where necessary, additional controls and strategies will supplement and support the design response.

3.7.1.1 Objectives

The integrated design approach to sustainability considers opportunities and provisions for resource efficiency in built form and the public realm, where possible, in line with the following objectives:

- **Water conservation and efficiency:** Reduce potable water use, maximise water reuse and implement best practice stormwater management.
- **Energy efficiency:** Reduce energy use, improve building comfort levels, reducing living costs and facilitate options for renewable energy generation.
- **Waste minimisation:** Maximise and/or facilitate recycling, and reduce waste disposal to landfill.
- **Materials reuse and efficiency:** Minimise resource use, maximise materials reuse on site, and use environmentally responsible materials, where available and feasible.

3.7.2 Sustainability in Built Form and Use

3.7.2.1 Water Conservation and Efficiency

Design guidance will encourage smart water use and efficiency, including fixed appliances and fittings that meet best practice standards. Some lots may have the capacity to store rainwater for appropriate non-potable uses, beyond the minimum small rainfall event volume. Opportunities for rainwater harvesting and reuse will be explored in these circumstances, where appropriate.

Verge and street alignments will be able to accommodate future installation of a third pipe system for reuse of treated greywater, allowing irrigation systems to be retrofitted with additional infrastructure to replace groundwater for irrigation.

Community and civic buildings will incorporate fixtures and fittings specified to meet best practice water efficiency standards beyond minimum compliance, wherever possible.



3.7.2.2 Energy

Development and lot layout has been oriented to maximise opportunities for solar passive design in both commercial and residential setting, future onsite renewable energy (e.g. rooftop solar generation) and optimal natural ventilation.

Local Development Plans will specify appropriate guidance and setback to facilitate solar access, and to encourage energy efficient and solar passive building practices.

Locally sourced construction materials (including recycled materials) will be used in construction wherever practical and feasible.

Where possible, higher standard energy efficient fixtures and fittings will be utilised, in those circumstances where the developer retains control over built form. Similarly, the layout of buildings to minimise hot water distribution distances will be taken into consideration.

Design location and space requirements for end of trip facilities and secure bicycle storage will be incorporated into commercial and public buildings where appropriate, to encourage modal shift.

3.7.2.3 Waste

Design guidance for commercial and multi-residential space will ensure floor area is allocated for waste management requirements which maximise recycling opportunities.

3.7.2.4 Materials

Design guidance for individual areas will encourage the use of materials from more sustainable sources, including reuse and recycled, locally sourced (where possible), low embodied energy and low toxic materials.

3.7.3 Sustainability in Public Realm

3.7.3.1 Water conservation and efficiency

Waterwise practices will be implemented in landscaping in public open space and within road reserves. Water efficient irrigation practices will be implemented throughout public open space.

Water sensitive urban design principles and practices have been applied to achieve best practice stormwater treatment and management outcomes, including sub-surface structures, vegetated tree pits, bio-pockets and swales within road reserves, and bio-retention areas within the public open space to the west of the ACP.

3.7.3.2 Energy

Landscaping design has focused on tree planting in the public realm to provide for a cooler, more comfortable microclimate as well as reducing energy use and impact on infrastructure. Lighter coloured materials and reflective surfaces that absorb less solar radiation will be considered in materials selection.

Design will accommodate key future-proofing components including but not limited to space for electric car charging infrastructure (points) into car parking facilities or other relevant public places.

Energy efficient public area lighting (excluding street lighting) will be utilised where possible and feasible.

3.7.3.3 Waste

A Waste Management Plan will be developed during civil construction to support waste reduction and reuse objectives, and to maximise use of recycled materials wherever possible.

3.7.3.4 Materials

Where possible, trees to be removed will be utilised within public open space, or they will be mulched for use within site landscaping. Any existing site materials that can be safely reused and incorporated in the public realm, for example through landscaping, street furniture and public art, will be considered, where it is safe and possible to do so.

Topsoil will be stockpiled and reused on site, provided material is contamination- and weed-free.

Design for materials efficiency will be considered in civil construction and the development of public open space, where possible, including for example reducing material quantities, designing for durability and reusability, and avoiding unnecessary materials use.



3.8 Water Management

3.8.1 Water conservation

Some lots may have the capacity to store rainwater for appropriate non-potable uses, beyond the minimum small rainfall event volume. Waterwise gardening practices will be implemented in the design of public open space areas and landscaping within road reserves.

3.8.2 Stormwater management

All lots will treat the small rainfall event within the lot through measures appropriate for the land use within the lot, such as water sensitive urban design structures, sub-surface structures, and rainwater tanks. Treatment of small rainfall event runoff from road reserves can occur within vegetated water sensitive urban design structures such as tree-pits, bio-pockets and swales within road reserves, and bio-retention areas within the public open space to the west of the ACP.

It is intended that many public open space areas within the ACP will not be significantly encumbered by stormwater runoff, but may include some water sensitive urban design structures for treatment. Minor and major event runoff will be directed towards the west of the ACP for conveyance within vegetated swales. These swales will direct appropriately treated runoff from the ACP (and future upstream residential development) towards existing culverts beneath the railway or Manjedal Brook.

3.8.3 Groundwater management

The use of sand fill will ensure the required clearances to groundwater are achieved. Subsoil drains within the ACP will manage the rise of groundwater into sand fill.

3.9 Management of Other Impacts

3.9.1 Acoustic Considerations and Management

An acoustic assessment for the ACP addresses the likely impacts of the rail line as a noise source, and identifies appropriate design responses and mitigation measures in keeping with the principles of SPP 5.4. These have informed ACP design and controls and include:

- Strategic location of public open space along the western and southwestern boundary;
- The provision of a bund and/or acoustic fence where necessary;
- Strategic location of mixed land uses and higher density type development within the district centre, which can often provide more effective noise management; and
- Quiet house design where necessary.

For land identified as potentially affected, a Noise Management Plan will be provided as a condition of subdivision approval.

3.9.2 Bushfire Management

A Bushfire Management Plan (BMP) has been prepared in accordance with Planning for Bush Fire Protection Guidelines Edition 2 with consideration of Draft State Planning Policy 3.7 Planning for Bushfire Risk Management and accompanying draft guidelines. The BMP has considered the bush fire hazard level when the ACP is implemented, and the area is developed. Refer to Appendix 5.

The BMP demonstrates that the bushfire risk over the site can be managed, through dwelling setbacks and construction standards (if required). Furthermore, the ACP provides a framework for additional work to be undertaken at the subdivision and building licence phase to ensure effective detailed planning informed by and managing bushfire risk.

This BMP will also outline required risk mitigation strategies, such as interface treatment, landscaping and other measures appropriate to the interface between the retained bushland and residential development.



3.9.3 Kangaroo Management

Kangaroo management is expected to be consideration for the ACP area. The kangaroo population will continue to be monitored and kangaroo management will be implemented in consultation with the Shire of Serpentine Jarrahdale, Department of Biodiversity, Conservation and Attractions and local stakeholders.

Any clearing of native vegetation within the ACP area will implement appropriate fauna management including measures to minimise impacts to kangaroos.

3.10 Illustrative Masterplan

This plan provides a detailed articulation of the development of the Whitby town centre. It provides additional detail beyond Plan 1 in Part 1, which guides development of the centre. This additional information is provided on an indicative basis, showing one form of ultimate development possible for the centre.

As outlined in preceding sections of the ACP, key features of the centre include:

- Approximately 22,000sqm net lettable shop retail space
- Approximately 31,000sqm total net lettable commercial space
- Employment for approximately 1000 people
- At least 592 dwellings proposed over 377 lots in a robust design that can accommodate additional density if justified by demand
- Over 12 hectares of open space, including retention of local bushland
- Space for public transport services as part of a connected street network
- Substantial tree planting on pedestrian-friendly streets, to reinforce the country town atmosphere of the centre



Figure 32: Illustrative Masterplan





4.0 Delivery Framework

4.1 Servicing and Infrastructure

Development of the Whitby town centre will generate demand for utilities, services and infrastructure. Aside from the need to expand or upgrade services within the district cell generally, there are no substantial infrastructure requirements specific to the Whitby town centre that present impediment to its development.

The most significant infrastructure determining the growth of the centre is the connection across the rail line to the western half of the district cell. Its establishment will vastly improve accessibility and the relationship between the centre and its catchment.

4.2 Implementation and Staging

The implementation of this activity centre plan will take place in stages, over an extended period. Generally the retail and commercial component will be developed reflective of demand and growth within the catchment for the centre.

Within this ACP, care has been taken to relate future growth and development of the centre and associated infrastructure in terms of catchment population, rather than time elapsed. Therefore, notwithstanding any references to timing for staging in the ACP, its growth will be dependent on population within the district catchment.

As an indicative guide, the catchment is projected to grow as follows:

YEAR	ANTICIPATED OCCUPIED DWELLINGS	ANTICIPATED POPULATION
2016	3,183	8,593
2021	3,867	10,442
2026	4,710	12,716
2031	6,690	18,063
2036	10,293	27,791
2041	14,907	40,250
Build Out	22,222	60,000

Based on the modelled floorspace demand, the likely first stage of retail development is expected to include a full-line supermarket offering once the catchment population is approximately 12,700. Limited ancillary medical, childcare and specialty retail offerings are expected to support this initial stage of development.

Further expansion will be dependent on the market need for DDS within the Whitby District Centre. Changing trends in retail may well mean that by this time a DDS is not required in this sort of centre, and an alternative land use mix emerges.

Residential development within the ACP area will also take place over an extended period, reflective of the diversity of dwellings to be offered in the centre, many of which become appealing once local amenity and convenience are established through the development of retail and community components.

Indicative spatial development of the centre is shown in the following series of sketches.

Figure 33: Average Annual Population Change, 2011 - 2041

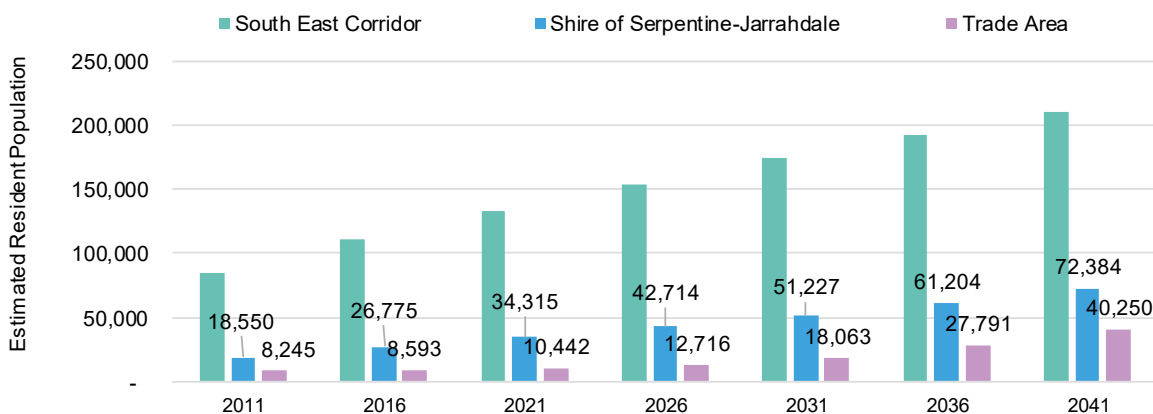
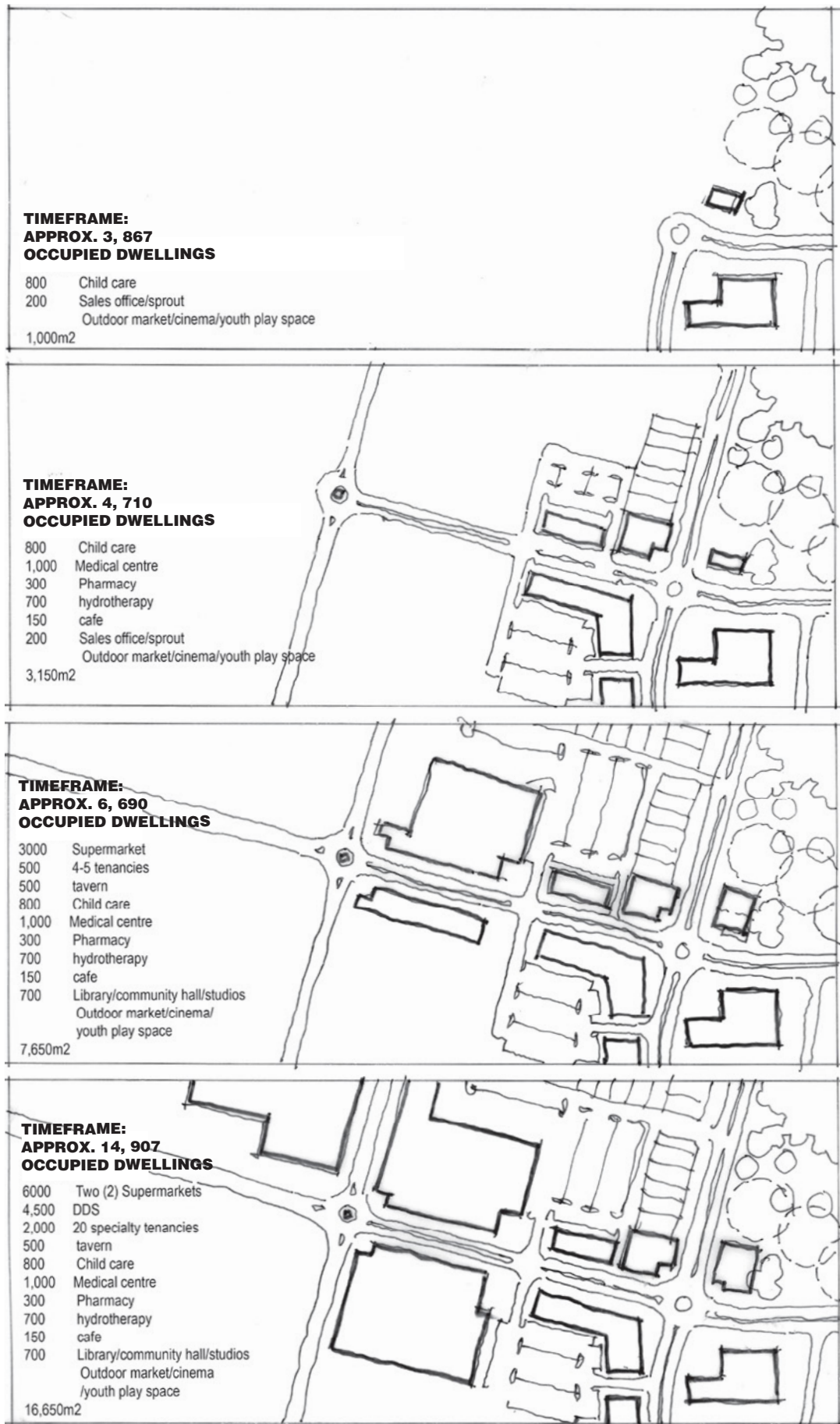




Figure 34: Indicative Activity Centre Plan Staging





4.3 Monitoring and Review

Pursuant to the Planning and Development (Local Planning Schemes) Regulations 2015, this activity centre plan remains valid for ten years from its date of endorsement. This provides a natural maximum timeline for review of the document.

There may be occasion before then to review the ACP also, for example when substantial funding decisions are made (such as the timing of development of the nearby TAFE campus, or changes to the district cell), or there is a substantial shift in policy.

In addition, there is opportunity to track progress of the ACP as individual developments and subdivisions are assessed. The trajectory of the centre against identified goals, policy targets and, most importantly, realisation of the vision can be undertaken on this basis.



RobertsDay
planning·design·place

robertsday.com.au

