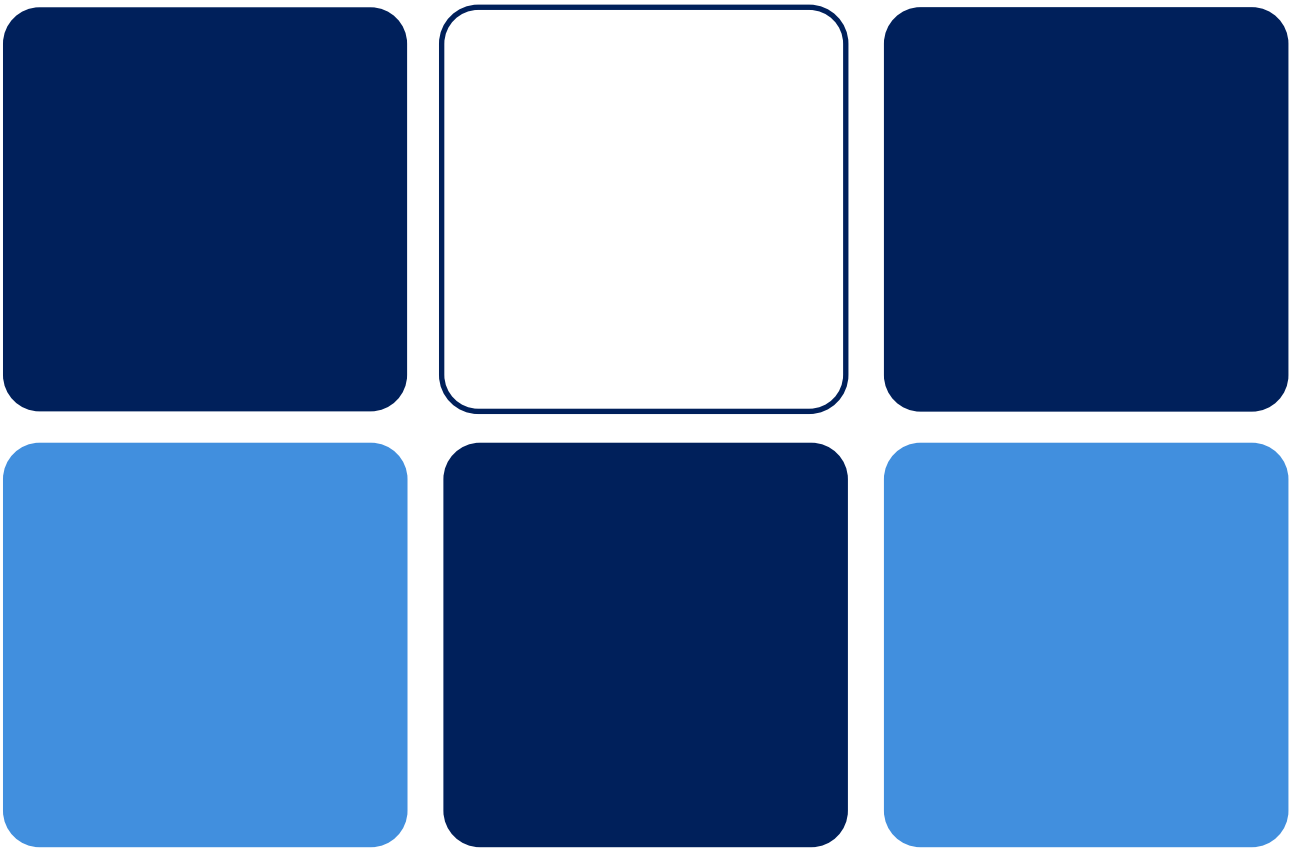
APPENDIX 1

ECONOMIC + DEMOGRAPHIC ASSESSMENT

South Perth Activity Centre Plan

Economic & Demographic Assessment



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Approval for Issue

Name	Signature	Date
Mark Wallace		27/08/2018

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Introduction

- RPS was engaged by the City of South Perth to undertake an economic assessment of the South Perth Activity Centre (SPAC). This assessment is to provide evidence in support of the preparation of the Activity Centre Plan (ACP) for the Centre.
- This assessment builds upon the ***Place + Design*** report for the South Perth Activity Centre prepared by Roberts Day.

Regional Context

- SPAC is a strategically located District-level activity centre located adjacent Perth Water in close proximity to the Perth CBD. As such, its development and growth will be heavily influenced by major regional trends across the Perth Metro area and Western Australia as a whole.
- Specific trends of note include:
  - **Perth Growing Population** – despite a recent slowing in population growth, in response to softer economic conditions and moderately higher unemployment rate, long-term population projections are expected to see Perth Metro reach 3.5 million people by 2050. This growth, combined with an increased policy emphasis on inner city redevelopment and dwelling densification is expected to see locations such as SPAC experience strong and increasing demand for housing.
  - **Population Ageing** – Not only is the population of Western Australia expected to grow, the retirement of the Baby Boomer Generation (born 1946-1964) is expected to drive the most rapid ageing of the State's population in history. The proportion of people aged 65+ is expected to increase from 13.1% in 2015 to more than 1 in every 5 residents by 2051. This will drive demand for a diverse range of housing typologies and services in Perth, as well as have wider economic implications as worker to population ratios decline and burdens on Local, State and Federal Budgets increase. Developing integrated, high amenity communities that encourage people to age in the community represents both a major challenge and opportunity for Perth over the coming decades.
  - **Volatile Economic Conditions** – the Western Australian economy is characterised by a comparatively high level of economic volatility, owing to the impact of mining investment cycles and resource production levels on economic, employment and income growth rates and the relatively small size of the domestic economy compared to major Eastern States. Similarly, Western Australia is more susceptible to overseas economic shocks due to its outwardly focused economy. While the long-term economic potential of Perth Metro and Western Australia are significant, growth is likely to be punctuated by periods of slower and softer growth. Currently this volatility is being borne out in historical high commercial office vacancy rates, as well as higher unemployment and declining house prices. While these trends are expected to reverse, they are likely to impact the growth and development of SPAC in the short-term.

Centre Context

- SPAC possesses a range of unique attributes and characteristics that will influence and impact its future growth and development profile over the next 25 years.
- It has strong vehicular accessibility via both the Kwinana Freeway and Canning Highway and is serviced by bus and ferry services that connect South Perth to the Perth CBD.
- Key economic and social assets of SPAC including the Perth Foreshore/Sir James Mitchell Park, the Mend Street Jetty and adjacent retail and café precinct and the Perth Zoo, which supports high quality residential, commercial and visitor amenities.

- The suburb of South Perth is home to over 12,800 people of which 2,675 live in the SPAC. While the wider suburb has experienced some growth in recent years, the population growth in SPAC has been broadly flat over the past 15 years.
- SPAC's population is characterised by high proportions of younger workers, mature families and older residents, with high proportions of people born overseas (over half).
- Income levels in SPAC are well above average, with the high amenity and accessibility of the location driving above average job choice and attracting more affluent households (through higher house prices).
- Housing stock is primarily in the form of apartments and townhouses, though the apartment share (43.9%) is less than expected for a river adjacent inner city location such as South Perth. New housing development has accelerated in recent years and is expected to drive increased population growth in the short-to-medium term.
- There were over 2,300 jobs in SPAC in 2015/16, with Office, Retail and Entertainment/Recreation accounting for the largest shares. This employment is accommodated in over 70,000sqm of commercial floor space (including about 8,000sqm of Retail floor space). Despite floor space levels increasing since 2007/08 by 4,000sqm, employment has declined by over 650 jobs. This reflects the impact of the slowing of the Perth economy, particularly on SPAC's secondary office market and is illustrated in local floor space vacancies.

Activity

- Overall, the recent decline in population and housing in the SPAC indicates ***that the Precinct is not currently fulfilling its full economic and social potential and has capacity for growth***. The Area possesses considerable local and regionally significant amenities and economic assets, providing residents and business alike with access to opportunities in the wider region through major road and public transport access. The presence of natural amenities (including Perth Water and the foreshore), coupled with a major attractor (namely Perth Zoo) also supports considerable tourism visitation.
- Similarly, the SPAC also possesses higher shares of detached and lower density housing than expected for an inner-city river front location. ***Public transport usage, while above average, is ultimately constrained by the lack of access to passenger rail.***
- Opportunities exist to enhance and intensify the urban form of the SPAC. Doing so will require a strong focus on urban regeneration and revitalisation, not only increasing the density of development ***but doing so in a way that enhances and sustains a high quality of life for new and existing residents, workers, businesses and tourists to the area.***
- RPS has undertaken a series of assessments to determine the potential future growth profile of SPAC. This has included population, employment/floor space, tourist/visitor and retail expenditure scenario testing for SPAC, to determine the optimal growth trajectory of the Centre over the next 25 years.
- Key growth scenarios assessed include:
  - **Base** – continuation of current role and function of SPAC within the wider region.
  - **Low** – marginal increase in the role and function of the Centre, resulting in minor increases in shares of regional activity.
  - **Medium** – moderate increase in the role and function of the Centre, resulting in notable increases in shares of regional activity.
  - **High** – large increase in the role and function of the Centre, resulting in significant increases in shares of regional activity.
- This scenario testing and modelling is ***unconstrained*** meaning it has not taken into consideration existing land supplies, planning and infrastructure capacity. Instead it outlines the social and economic potential of the Centre that will need to be supported and facilitated by investments in new infrastructure, floor space and housing.

- The following size, scale and mix of activity is recommended as the basis of land use and structure planning for SPAC as part of the ACP.
- RPS recommends that a population and dwelling growth profile between the Medium and High Scenarios should be adopted. This reflects the amenity and accessibility of SPAC, prevailing Government policy relating to infill development and complementary nature of residential and tourism development and investment.

Table 1 Recommended Indicators of SPAC Growth

Indicator	Current	2031	2041	Scenario (if Relevant)	Growth by 2041
Population	2,675	4,750	7,500	Medium-High	4,825
Dwellings	1,941	2,750	4,250	Medium-High	2,309
Employment	2,302	3,400	4,600	Low-Medium	2,298
Employment-Related Floor Space (sqm – excl Retail)	63,000	92,500	110,000	Low-Medium	47,000
Shop Retail Floor Space (sqm)	8,172	13,860	20,356	NA	12,184
Tourists/Visitors per annum	119,017	177,200	236,800	NA	117,783

- RPS also recommends that an Employment and Commercial Floor Space growth profile between the Low and Medium Scenarios should be adopted. This reflects the strengths of the local economy in population and tourism servicing, the current commercial office market environment in Perth and the need for improved, rail-based transport accessibility to intensify white collar employment.
- These indicators represent a SPAC in 2041 that is ***a high amenity aspirational residential and visitation location of choice that leverages its inner city, river front amenities to support increased density in a way that significantly enhances pedestrian amenity, service delivery and transport accessibility within and throughout the precinct***.
- SPAC's greatest potential is in supporting a higher density inner city residential community and tourist destination, with expenditure from both sources, along with workers, supporting a higher standard and scale of services, than which can be supported by the population alone.
- This will be complemented in the medium and long-term by increased commercial activity, particularly boutique and bespoke commercial office developments with a focus on research, creative and professional services sectors that seek to locate in SPAC to help attract and retain knowledge workers of the future.

1.0 Introduction

1.1 Background and Purpose

The State Planning Policy 4.2 states four key requirements for activity centre development for the Greater Perth region:

1. Diversity and intensity of activity - the centre should promote an equitable distribution of services, facilities and employment, in a high-density manner to reduce the need for transport.

2. Optimal residential density for the activity centres - buildings should be scaled appropriately, and higher density developments should be built close to key activity centres.

3. Employment provision - employment opportunities should be enhanced to contribute to sub-regional targets.

4. Major office developments should be located in the Perth CBD, or in strategic or specialised centres; offices in district centres should complement the function of the centre.

The *Directions 2031 Spatial Framework for Perth Peel* has a target distribution of 47% of all new dwellings to be in existing urban areas within the Perth and Peel regions. The central sub-region is ideally located to satisfy this development level, and the targets for the central sub-region are significant compared to outer regions of Greater Perth. The central sub-region is expected to see the population grow by 29% from 2011 to 2031, which equates to a demand of 121,000 new dwellings and the creation of 147,000 jobs.

South Perth is a centrally located local government area that is set to see a significant amount of development that will contribute to the targets set by *Direction 2031*. South Perth is close to the Perth CBD, and other major employment and specialised centres such as the Curtin research precinct, which results in short commuting times for residents. South Perth also sees a high level of amenity due to being bounded by the Swan River, making it a desirable location to live and work.

To support the future growth and development of South Perth, an Activity Centre Plan (ACP) is being prepared by the City of South Perth for the South Perth Activity Centre (SPAC).

This assessment represents the economic input and evidence supporting the development of the ACP.

1.2 South Perth Peninsula Place + Design Report

Informing the development of the ACP is the *South Perth Peninsula Place + Design* Report, prepared by Roberts Day. The report presents a draft of a renewed stakeholder-led vision that articulates future aspirations and goals for the South Perth Activity Centre (SPAC) and immediate surrounding area, together with goals, ideas and recommended actions for the continuing planning and development of the South Perth Peninsula.

Recommended goals outlined in the report are:

- **Deliver a robust planning framework** - Reshape current processes to establish a comprehensive framework which better responds to stakeholder expectations around liveability and integrated place, design and planning outcomes.
- **Improve movement and connectivity** - Improve movement and access within the Peninsula through a comprehensive approach to traffic and parking management which encourages a modal shift towards

walking, cycling and public transit.

- **Enhance street and green spaces** - Improve the Peninsula's network of streets and parks to strengthen its unique spaces and amenities, maximise usability and recreational opportunities and support ecological sustainability.
- **Encourage responsive development** - Ensure that new development better relates to its context, complements local character and minimises impacts on existing buildings.
- **Creating places for people** - Reposition the Peninsula as a destination of choice by enhancing local identity, delivering community amenities and reinvigorating key assets and destinations.

The report also includes an implementation schedule outlining short, medium and long-term priorities for specific actions required to deliver on the goals and ideas collectively developed with stakeholders.

The development of the ACP was a central recommendation of the *South Perth Peninsula Place + Design* report. The purpose of the ACP is to comprehensively address built form, public realm, place management, economic, traffic and infrastructure issues.

This assessment represents the economic input and evidence supporting the development of the ACP.

1.3 Assessment Structure

This Economic Assessment of the SPAC is comprised of the following key sections:

- **Regional Context:** Profiling of Greater Perth, including historic and projected indicators, identifying the implications of Greater Perth on the SPAC.
- **Profile of SPAC:** An overview of the activity centre, including key socio-demographic indicators, dwelling profile and an overview of employment trends and commercial office supply.
- **Capacity for Growth:** Qualitative assessment of the capacity of the SPAC to grow, based on the key drivers of capacity.
- **Growth Scenarios:** Through RPS modelling, growth scenarios are presented for both population and employment through to 2051.
- **Tourism Projections:** assessment of tourism projections for South Perth to 2051, including day trip and domestic and international overnight visitors.
- **Retail Need Assessment:** assessment of demand for shop retail floor space in the SPAC, including a multi-source retail needs assessment factoring in residential, worker and visitor expenditure sources.
- **Economic and Development and Implementation Advice:** advice on the economic vision, role and function of the SPAC in the future, associated strategic themes and economic opportunities and recommendations on incentives and strategies that can be implemented to facilitate sustainable growth and development.

1.4 Reference Documents

This Assessment draws upon information and analysis from a range of existing literature, policies and strategies. Key documents and reports reviewed include:

- South Perth Peninsula Place + Design Report, Roberts Day (2017)
- South Perth Economic Development Strategy 2013-2016 (2013)
- Central Sub-Regional Planning Framework (2015)
- South Perth Station Precinct Plan and Vision (2011)

- Draft South Perth Local Housing Strategy (2011)
- South Perth Local Commercial Strategy (2004)
- Directions 2031 and Beyond (2010)
- Draft Perth and Peel @ 3.5 million (2015)

1.5 Glossary and Abbreviations

ACP	Activity Centre Plan
CBD	Central Business District
DAP	Development Application Panels
GFA	Gross Floor Area
GFC	Global Financial Crisis
GLA	Gross Lettable Area
ha	Hectare
PLUC	Planning Land Use Category
SA2	Statistical Area Level 2
SA3	Statistical Area Level 3
SOHO	Small Office, Home Office
SPAC	South Perth Activity Centre
SQM	Square Metres
UWA	University of Western Australia
WA	Western Australia
WAPC	Western Australian Planning Commission

1.6 Geographical Scope

This Assessment focuses principally on the SPAC, as defined in the *South Perth Peninsula Place + Design* report by Roberts Day. The SPAC is defined as the northern portion of the South Perth City Centre, focused primarily on the South Perth Peninsula.

The SPAC encompasses the area bounded by:

- the Kwinana Freeway to the west;
- Angelo Street to the south and the southern boundary of Perth Zoo;
- Onslow street to the east, and
- the South Perth foreshore to the east.

Figure 1 South Perth Activity Centre

2.0 Regional Context

Rapid population growth has transformed Perth into a global city which is home to more than two million people and globally-recognised organisations and attractions. It has been consistently rated within the top ten most liveable cities in the world and has benefited from a wave of migration because of the lifestyle and employment opportunities it presents[i]. However, with this growth has come challenges of congestion, affordability and economic potential.

This section summarises the key drivers and trends of the growth in Metropolitan Perth and Western Australia and the implications for the City of South Perth and the SPAC.

2.1 Greater Perth in Context

2.1.1 Perth's Growth Profile

Prior to 1900, Perth was a small town which grew only with the Western Australian gold rush, with the discovery of gold near Kalgoorlie. Most of the city grew post World War II and, consequently does not have a dense Victorian core similar to the CBDs of the eastern cities. Perth's population growth has historically been small, and only in 1984 did it overtake the population of Adelaide.

Despite the uncertainties with any population forecast, the Stephenson-Hepburn report in 1955 allowed for 1.4 million residents of the Perth metropolitan region in 2000, a target which proved surprisingly accurate. However, since this time, Perth and Western Australia have decoupled from this long-term trend, with economic and interstate and international migration lifting Perth past two million residents (or 38.9% growth over the past 15 years)[ii].

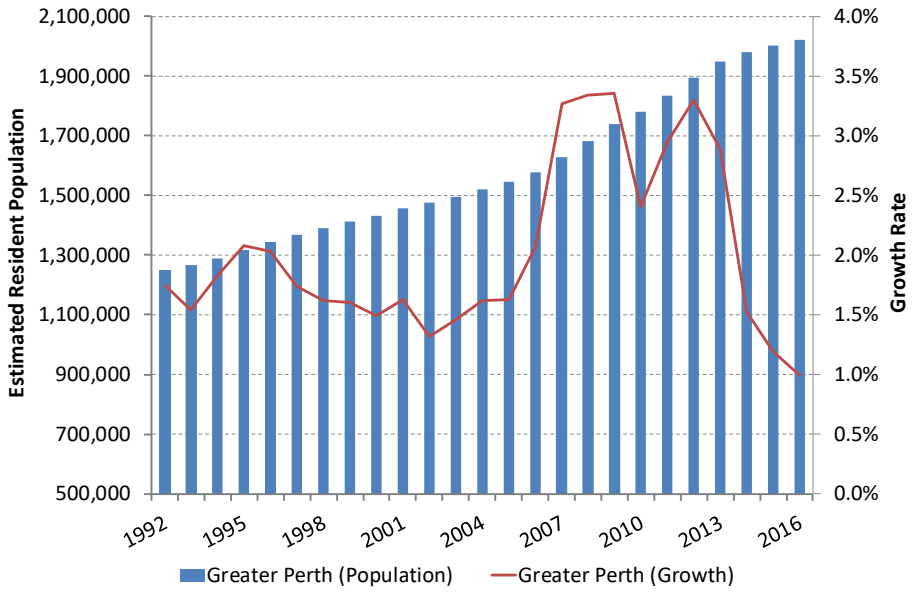

Figure 2 Historical Population, Greater Perth, 1992-2016[iii]

Recent population growth has been driven principally by a super cycle of investment and construction in the resources sector between 2008 and 2013, which in turn supported historically high wage growth and historically low unemployment rates in the State (they reached a low of 2.7% in 2007 and 3.6% again in 2012).

Figure 3 Unemployment Rate, Western Australia, 2004 to 2017[iv]

The tightening of the labour market underpinned strong interstate migration which countered long-term emigration patterns from Perth to locations like Brisbane and Melbourne and instead attracted tens of thousands of workers, along with their families to call Perth and Western Australia home. At the height of the cycle in 2011-2013, population growth reached over 66,000 people per year, equivalent to the growth of Sydney at the same time, despite Sydney being 250% larger than Perth.

Perth property markets were significantly impacted by the combination of rapid population and income growth by workers as well as improved business profitability and activity. Commercial office vacancy rates in the Perth CBD fell to effectively 0% in 2008/09 and returned to below 5% in 2012 after the GFC and the addition of new stock.

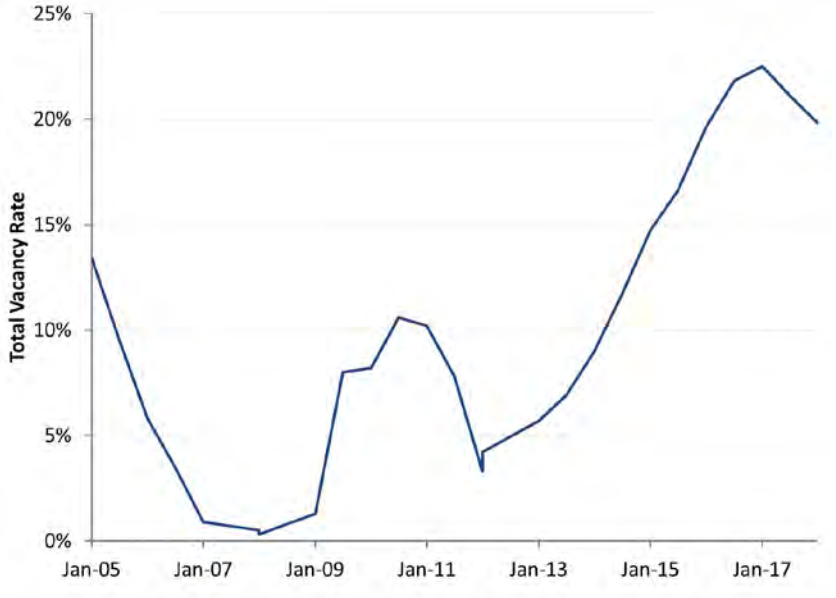

Figure 4 Commercial Office Vacancy Rates, Perth CBD, 2005 to 2017[v]

Median house prices also increased substantially, reaching $580,000 in the Perth Metro area in 2014/15[vi]. While this has led to a substantial increase in equity and wealth for existing households, these price levels have rendered Perth one of the least affordable cities in the world[vii].

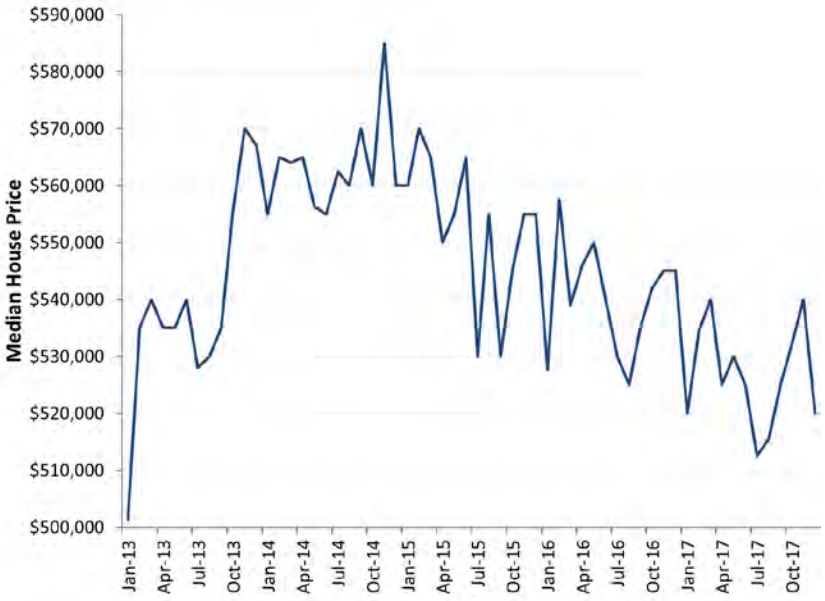

Figure 5 Median House Prices, Perth Metro, 2013 to 2017[viii]

2.1.2 The End of the Mining Boom and the "New Normal"

However, the more recent slowing of the WA economy, and the unwinding of once-in-a-generation levels of business investment have seen some of the pressures on housing, commercial property and labour markets soften. Since 2014, median house prices have trended downwards by approximately 8% over the past three years. This steady correction was largely due to the decline in interstate migration to WA, with population growth falling to 1% per annum in 2016.

Unemployment has also increased, albeit from exceptional lows, returning to levels similar to pre-2004 and 2009, at below 6%. Finally, commercial office floor vacancy rates have increased substantially, reaching above 20% for the first time in over a year in January 2018.

Despite the scale of the decrease in investment in the resource sector in the State and the corresponding flow on effect to commercial office demand, the transition of the Western Australian economy to the "new normal" in the past 18 months has broadly been soft and smooth.

Moreover, median house prices have not fallen as sharply and dramatically as some early expectations. The State has continued to produce jobs, with residential construction, tourism and health sectors helping offset much of the downsizing of the resources sector and associated supply chain labour forces.

2.1.3 Perth's Future Growth and Ageing

Despite the volatility of Perth's economic and population growth over the past 15 years, expectations are that Greater Perth will continue to grow and evolve into a global city of more than three and a half million residents by 2050.

This future is envisaged in *Perth and Peel @ 3.5 million* and the associated suite of strategic land use documents. The growth scenario represents an average annual increase of 1.6% or approximately 41,700 persons per annum. This growth is lower than levels experienced over the previous decade (2.8% per

annum) and the previous 35 years (2.3% per annum), reflecting the larger critical mass of Perth's urban area and the subsequent slowing in growth rates associated with a larger population base.

Similarly, the sustainability of the recent rate of urban expansion in Greater Perth is increasingly questionable, with planning policies at the State Government levels instead promoting substantial transformation of the city's inner urban areas over the coming decades[ix].

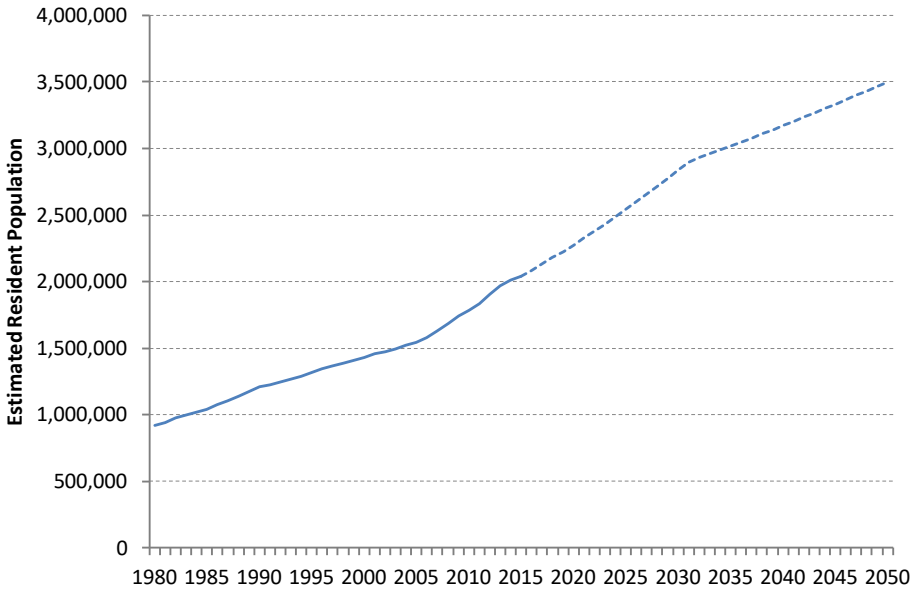

Figure 6 Forecast Population, Greater Perth, 1980-2050[x]

Towards a city of 5.4 million residents

Whilst this study reflects the State Government 3.5-million-person target, the Australian Bureau of Statistics' latest long-term forecasts for Greater Perth demonstrate that the city could grow to between 3.9 million and 5.4 million residents by 2050 because of high levels of migration, especially from overseas, and greater levels of natural population growth[xi]. For all three scenarios developed, Perth is expected to overtake Brisbane's population by 2032.

Perth's future growth will be underpinned by a combination of natural growth and migration. This is important to recognise as natural growth through population ageing, fertility patterns and employment migration, have different drivers and needs which will impact on the potential growth of South Perth.

One of the more significant trends expected to transform Perth over the coming decades is the ageing of the population. The proportion of residents aged 65 and over is expected to increase from 13.1% as of 2015 to more than one in five residents (20.7%) by 2051[xii]. This trend is already having implications on health and aged service needs and will drive future expansions in aged accommodation and community service organisations.

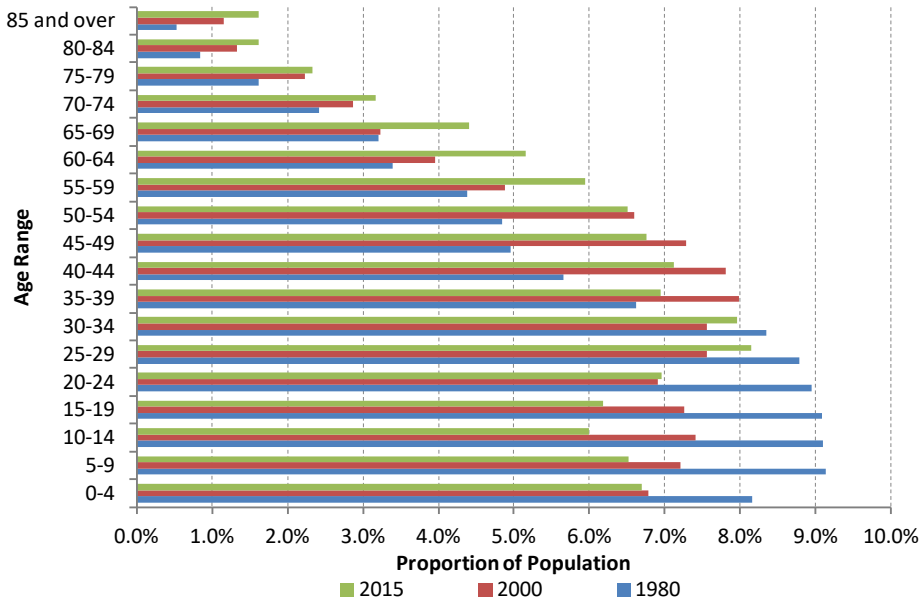

Figure 7 Population by Age Range, Western Australia, 1980-2015[xiii]

In the long-term, Perth is expected to continue to experience significant numbers of inbound overseas migrants. Perth already has the highest level of overseas-born residents of all Australia's capital cities (40.4% as of 2011), with one in five residents speaking a language other than English at home[xiv]. Migration and diversity have given Perth a competitive edge in a more globalised world, with a widely cited 2013 study showing a positive correlation between cultural diversity and productivity[xv].

Nevertheless, this recent population growth in Perth has resulted in many challenges and concerns. Congestion and the capacity of urban infrastructure to effectively meet the corresponding increase in demand have become prominent in public debate, with public infrastructure built to accommodate a city of 1.5 million having to accommodate a population of more than 2 million in the next ten years. The cost of commuting to the Perth CBD is a focus, given morning peak travel times for the growing northern suburbs have increased to approximately one hour[xvi].

2.2 Implications for the SPAC

The key question raised by an assessment of the Regional Context of the South Perth Activity Centre is what role the Precinct and the wider South Perth suburb and Council areas play in the future of Greater Perth. Previous cycles of strong growth have manifested in South Perth in the form of increased residential development, tourist visitation, infrastructure draw down (including congestion and parking) as well as higher land and house prices.

Conversely, the more recent volatility in the regional economy has raised implications on the long-term role and function of the South Perth commercial office market and what differentiates it from other inner Perth markets like West Perth, East Perth and Northbridge.

Finally, the future structural growth and ageing of the Perth population will likely have implications for South Perth. As a high amenity, aspirational residential and lifestyle destination in inner Perth, owing to its natural environment and strong accessibility characteristics, South Perth is likely to continue to be a target for increased population growth, particularly among older residents, for the next 15-20 years.

3.0 Profile of South Perth Activity Centre

The story of the SPAC is also the story the wider South Perth suburb and Council Area. The SPAC represents both an opportunity for the potential of South Perth to be realised for the benefit of residents and businesses and for the Local Government to play a more central role in meeting the future growth of Greater Perth.

3.1 The Suburb of South Perth – An Inner-City Riverfront Destination

The suburb of South Perth is an iconic lifestyle and tourist destination in inner Perth. Strategically located on the Swan River directly opposite the Perth CBD, South Perth has long been an aspirational location for residents and visitors alike, with the location being a regarded as a tranquil residential suburb and cross-river tourist destination as early as the 1880s.

South Perth possess a range of local and regionally significant assets and features that have underpinned its growth and prosperity:

- **Sir James Mitchell Park** – this expansive foreshore reserve park originally provided market gardens and other agricultural products for the early colony. Since the 1970s, investment by State and Local Government has transformed Sir James Mitchell Park into one of Perth's most popular and utilised parks. Extending from the Mend Street Jetty to south of Herrison Island, the Park provides open space and facilities for local and regional residents, including families and individuals for barbeques, sport and exercise (running, walking and cycling). The Park is also a common venue for both City and community organised events.
- **Mends Street Jetty** – One of two major jetties on Perth Water, the Mends Street Jetty is the second stop in the Elizabeth Quay-Mend Street ferry route operated by Transperth. Originally formalised and expanded in response to the establishment of the Perth Zoo in the late 1890s, the Jetty provides residents with access to both ferry and charter vessel transport. Recently, the Jetty has become increasingly popular among tourists, following the development of Elizabeth Quay and associated tourist access to Perth Zoo, Sir James Mitchell park and the Mend Street Café and Retail Strip.
- **Mends Street Café and Restaurant Precinct** – Located directly south of the Mends Street Jetty, Mends Street is an established café, retail shop and restaurant precinct. Anchored by the Windsor Hotel on the corner of Mends Street and Mill Point Road, Mends Street offers a diverse range of convenience shopping, local takeaway and café food and beverage and boutique and high-end restaurant offering.
- **Kwinana and Canning Highways** – South Perth is serviced by both major north-south and East-West highways in the form of the Kwinana Freeway and Canning Highways. The Kwinana Freeway is the main North South Highway in Metropolitan Perth, extending from the Perth CBD to Mandurah. As such, it is often heavily congested where it crosses the Swan River from Mill Point, particularly during weekday peak times. The Canning Highway crosses South Perth from the north east to the south west. One of the primary arterial connectors west to Fremantle and the western suburbs of Perth, the Canning Highway also forms into the Great Eastern Highway at the Causeway, providing direct access to Perth Domestic and International Airport Terminals.
- **Perth Zoo** – Established in 1898, Perth Zoo has been a regionally significant tourist destination in inner Perth for 120 years. The establishment of the Zoo on the current 17ha site between Mill Point and Labouchere Roads was fundamental to the establishment of the suburb of South Perth and its formal connections to the Perth CBD in the late 19th century. In 2016/17, the Zoo attracted over 657,00 visitors and provides natural and high amenity habitats for over 1,400 animals across 169 species.

Together, these spatial assets provide ready access for residents to the employment and economic opportunities of the Perth CBD and wider metropolitan area and allows tourists and visitors to take advantage of the some of the location's natural and manmade attractions and amenities.

All these spatial attributes (except for Canning Highway) are located with the South Perth Activity Centre.

3.1.1 Key Demographics of the Suburb of South Perth

The population of the suburb of South Perth is projected to increase from 12,858 in 2016 to 20,331 in 2041, an increase of approximately 7,500 people[xvii].

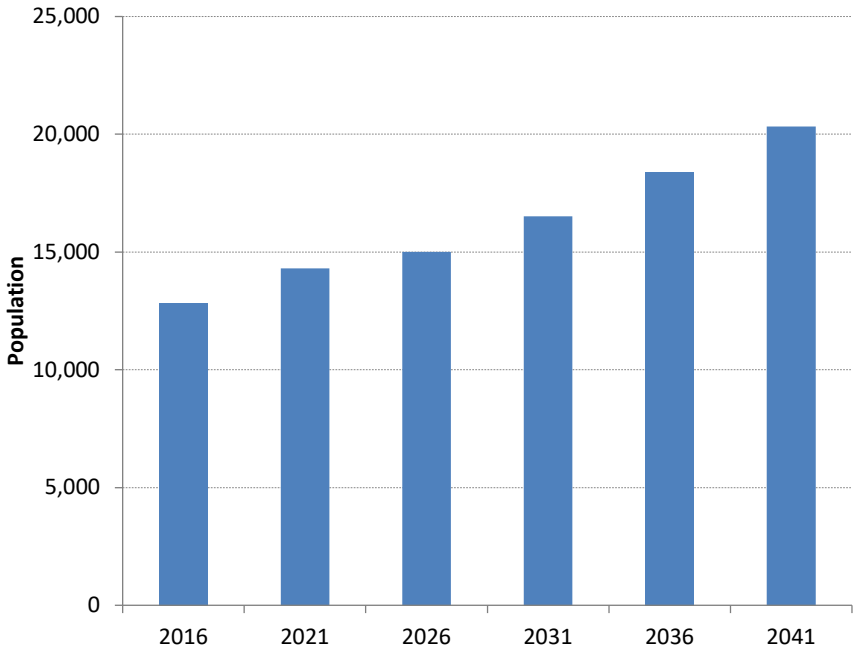

Figure 8 Population Projections, South Perth Suburb, 2016 to 2041

This growth is expected to be driven by a combination of young adults (including students and workers) and older residents (aged 65 years and over). Both age groups will see their share of the total population of the South Perth suburb increase in over the next 15 years, principally at the expense of mature workers (aged 45-64). This demographic trend is expected to moderate over the following 10 years to 2041, as the impact of the Baby Boomers on the demographic profile of South Perth moderates and a more "normal" age profile returns.

Table 2 Age Profile, Suburb of South Perth, 2016, 2031 and 2041[xviii]

Age Group	2016	2031	2041
0-14	12.2%	13.0%	12.9%
15-24	12.8%	14.8%	14.7%
25-44	32.2%	32.0%	31.6%
45-64	26.4%	22.8%	23.6%
65+	16.3%	17.5%	17.3%

Overall, the current age profile of the suburb is older than that of Metropolitan Perth, with significantly lower shares of children (0-14) and more older residents. Interestingly, the suburb has similar shares of people aged 15-24, and higher working age residents suggesting a high proportion of both younger working couples without children and more mature families (with children aged 15 and over).

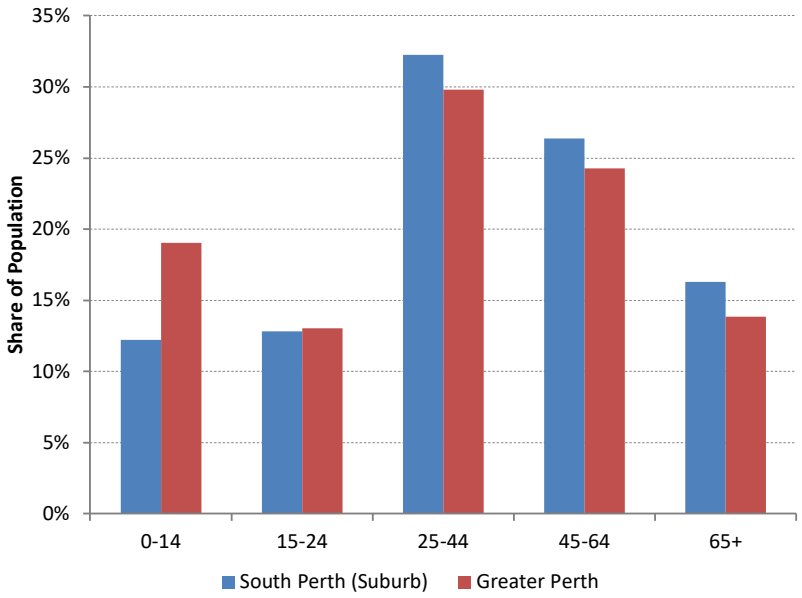

Figure 9 Age Group Share of Population, Suburb of South Perth and Perth Metro, 2016[xix]

3.1.2 South Perth Business Activity

With changing economic structures impacting current and future growth sectors, there is an impetus to ensure the SPAC is an attractive destination for businesses, especially given increased competition from across Perth, the nation and globally.

Analysis of business data for the South Perth-Kensington SA2 (which includes the suburb of South Perth and the SPAC) reveals that South Perth has seen a marginal decline in local businesses. Between 2012 and 2016, the number of registered businesses fell from 2,776 to 2,767.

However, during this time the number of larger businesses (employing over 20 people) increased from 65 to 75, and the number of non-employing businesses stayed consistent. Non-employing businesses comprised the largest share of businesses in the South Perth – Kensington area. While it is not unusual for non-employing businesses to comprise the majority of locally registered businesses in an area, South Perth's share is higher than typically expected for inner city locations.

Table 3 Business Levels, South Perth - Kensington, 2012-2016[xx]

Number of Employees	2012	2013	2014	2015	2016
Non-employing	1,844	1,783	1,788	1,815	1,845
1 to 4	618	597	639	627	626
5 to 19	249	242	244	246	221
20 or more	65	70	94	81	75
Total Employing Businesses	**2,776**	**2,692**	**2,765**	**2,769**	**2,767**

As expected, the decline in local businesses in South Perth was primarily in the Professional Services and Mining sectors and represents the local impacts of State-wide declines in these sectors. This however has been almost entirely offset by substantial increases in the number of rental, hiring and real estate and financial services businesses.

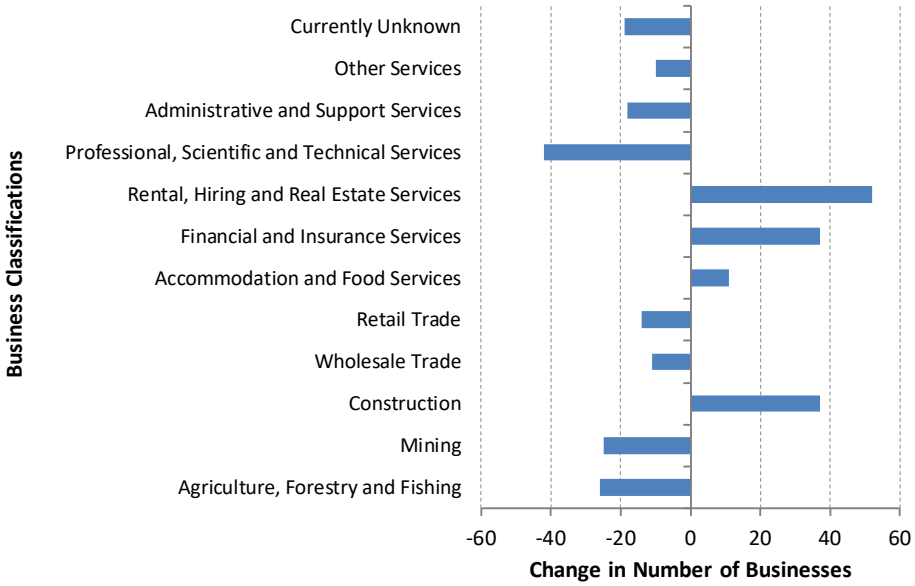

Figure 10 Industry Classifications of Businesses, South Perth - Kensington, 2012-2016

In addition to above, analysis of business entries and exits in South Perth provides an insight into the recent dynamics of the local business community. Of concern is the consistent decline each year in the number of businesses with 5-19 workers. While some of these businesses potentially grew and transitioned into the larger category businesses.

Table 4 Business Entries and Exits, South Perth - Kensington, 2012-2016[xxi]

Number of Employees	2013		2014		2015		2016	
	Entries	Exits	Entries	Exits	Entries	Exits	Entries	Exits
1 to 4	69	45	84	51	88	61	78	57
5 to 19	10	14	17	18	6	12	4	9
20 or more	3	3	6	3	4	3	0	3
Total Employing Businesses	**82**	**62**	**107**	**72**	**98**	**76**	**82**	**69**

Facilitating the growth of non-employment and 1-4 worker businesses into larger businesses within South Perth and the SPAC must therefore be a priority in the short-to-medium term.

3.2 South Perth Activity Centre Profile

The SPAC represents the core of the South Perth suburb and encompasses many economic and business assets and activities. Areas within the South Perth suburb surrounding the SPAC are primarily established low density residential in nature, with a lower concentration and distribution of business activity.

Key characteristics of the SPAC are summarised below.

3.2.1 Centre Population

The population of the SPAC has not grown significantly over the past 15 years, with the residential population of increasing to 2,675 residents as of 2016 (an increase of 1.8% per annum). These residents are housed in 1,941 dwellings within the SPAC precinct in 2016.

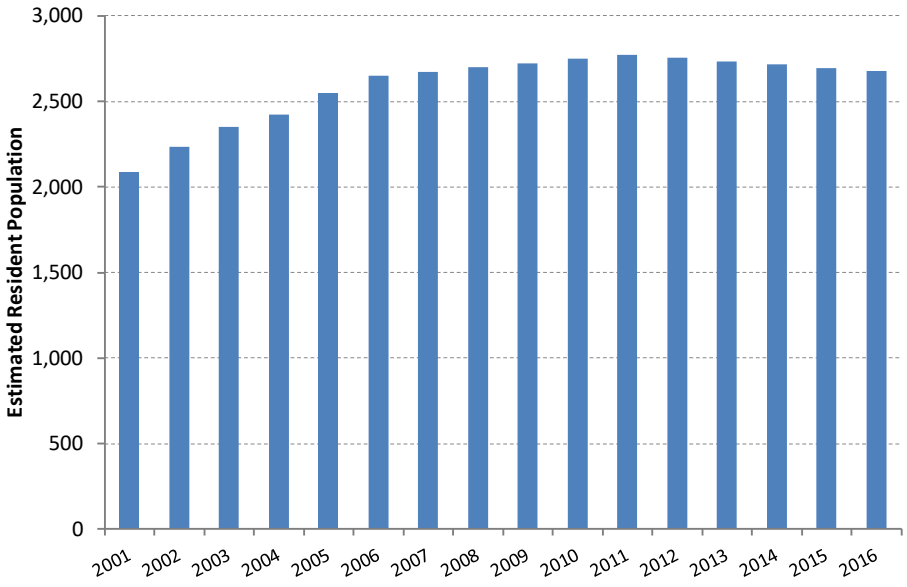

Figure 11 Residential Population, SPAC, 2001-2016[xxii]

There are currently a substantial number of developments underway in the SPAC, including the development of approximately 400 apartments. This reverses the historical trend of below average development rates, with the number of dwellings falling from 2011 to 2016.

3.2.2 Demographic Characteristics

The resident population within the activity centre is characterised by many key attributes which have been assessed based on the 2016 Census of Population and Housing and include[xxiii]:

- **High young adult population**, with 32.3% of residents aged between 20 and 34 years of age compared to 22.6% across Greater Perth;
- **Higher older population**, with above average shares of people aged 55+
- **Few indigenous residents**, with no residents identifying themselves as being of Aboriginal or Torres Strait Islanders; and
- **High overseas-born population**, with 53.1% of residents born overseas compared to 38.7% across Greater Perth.

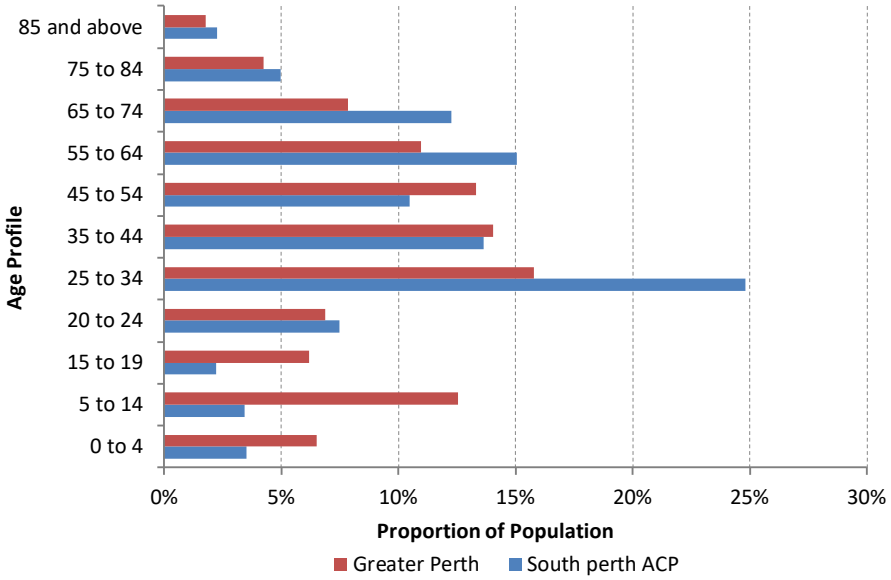

Figure 12 Residential Population by Age Groups, SPAC and Greater Perth, 2016[xxiv]

This age profile broadly aligns with the wider South Perth suburb, though the size of the 25-34 age group share is even more stark.

The cultural diversity is particularly important to recognise as overseas born clusters have important implications on the development of localities. Whilst much of this is self-evident, it is of interest to establish formal and informal networking opportunities for members of diverse ethnic networks given this can lead to a faster rate of establishing integration[xxv].

The major overseas origins for immigrants in the SPAC as of 2016 were:

- United Kingdom (16.0% of overseas-born population),
- Malaysian (7.1%),
- India (7.1%),
- New Zealand (6.0%),
- South Africa (4.6%)
- China and Hong Kong (4.5%), and
- Indonesia (4.2%).

3.2.3 Socio-Economic Characteristics

The socio-economic characteristics of the SPAC are diverse and help to underpin the unique drivers of the local population and economy. While similarities between the Study Area, wider suburb and Council area are expected and consistent, profiling key indicators where there are divergences helps to identify opportunities for differentiation and future growth.

In 2016, the SPAC had about a 20% lower share of Family Households (which in this context included couples with no children living at home)as part of its overall household composition compared to Greater Perth. This is in line with a much higher proportion of lone person households which are associated with a greater proportion of aged people.

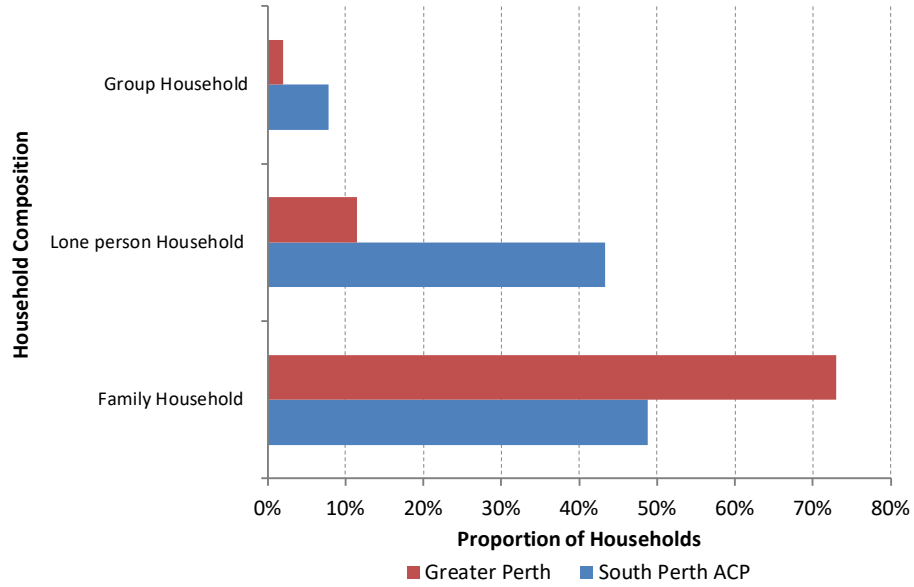

Figure 13 Household Composition, SPAC and Greater Perth, 2016[xxvi]

Note that Family Households includes both Couple Only households and Couples with Children. A review of the family composition of South Perth households indicates that over 50% of family households were without children.

Meanwhile, residents in the SPAC had relatively higher incomes than the Greater Perth average. Higher incomes are largely a reflection of the industry of employment, with many residents in high paid positions in professional services and financial services, though there is a substantial proportion of the population employed in health care and education.

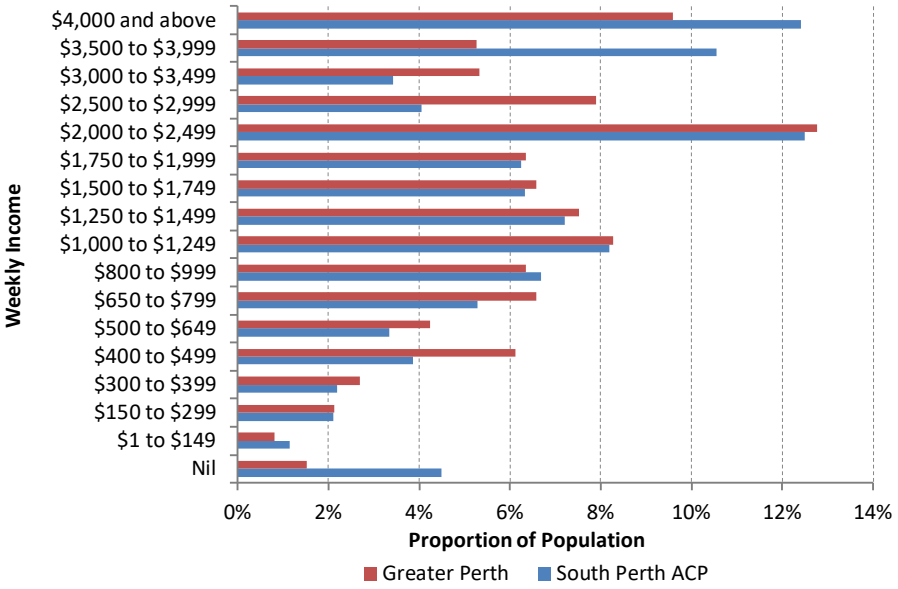

Figure 14 Income Levels of Residents, SPAC and Greater Perth, 2016[xxvii]

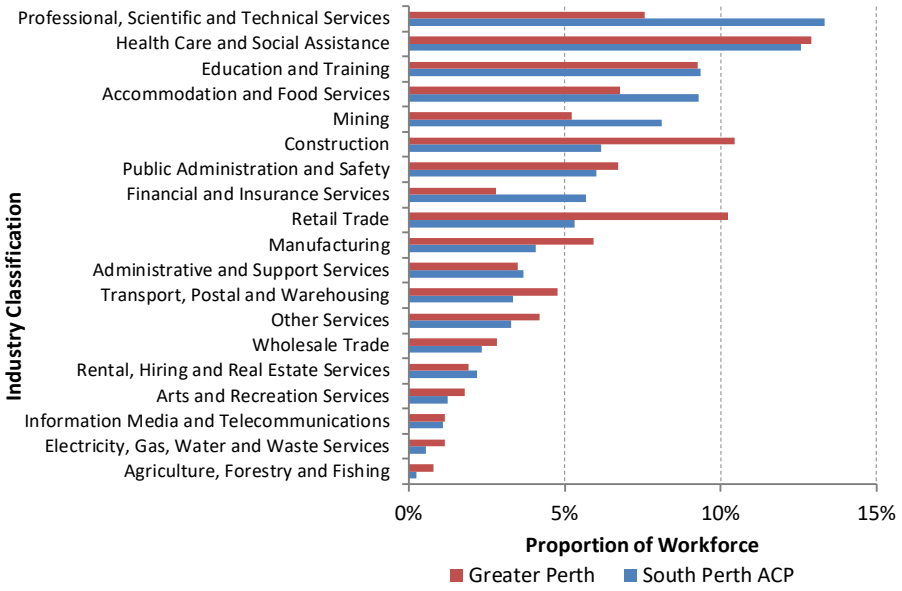

Figure 15 Industry of Employment of Residents, 2016[xxviii]

RPS also examined data on commuter patterns to understand the influence of key arterial routes on dwelling demand in the activity centre. The analysis revealed that 15.5% of workers took the bus to work, 59.9% travelled by car, 1.7% cycled and 1.7% took the ferry[xxix].

Overall, the level of residents that took advantage of the public transport was relatively high (at close to double the Greater Perth average) and residents were less likely to drive to work, compared to the Greater Perth average. Cycling to work, while higher than the greater Perth average, was relatively low by inner-city activity centre standards.

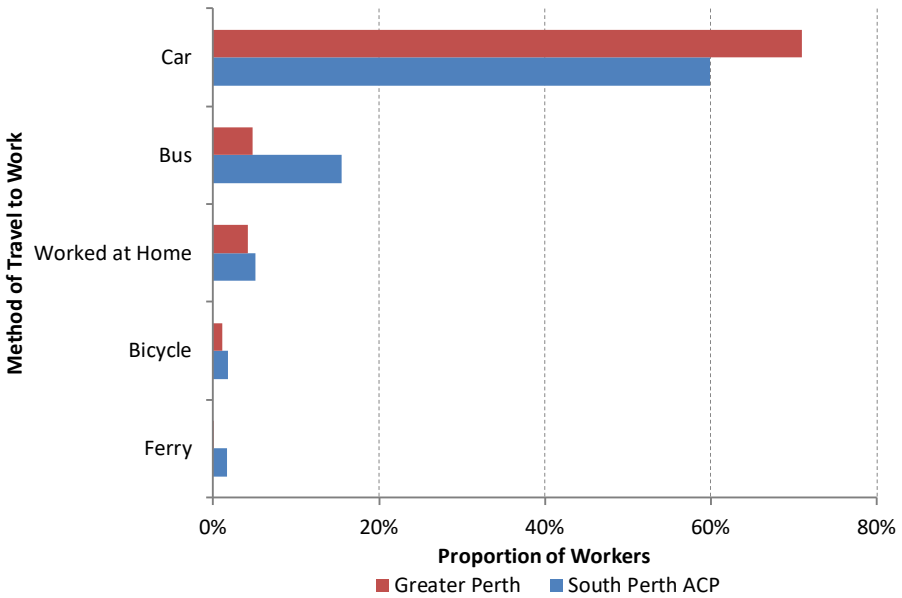

Figure 16 Method of Travel to Work of Residents, SPAC and Greater Perth, 2016[xxx]

3.2.4 Housing Stock

As of 2016, there were 1,941 dwellings within the SPAC precinct. Much of the recent development in the SPAC has been in the form of consolidating less intense residential land uses. This aligns with broader State

Government policy for inner city locations to play an enhanced role in meeting future population growth through more intensive residential built form.

As a result, detached housing in the SPAC represents a relatively low proportion of housing stock than the Greater Perth Average. However, with over 50% of the local housing stock as either detached and semi-detached, the overall level of residential density for the SPAC is significantly below key benchmarks from around Australia.

Table 5 Share of Dwellings by Type, SPAC and Greater Perth, 2016[xxxi]

Location	Detached and Semi-detached Dwellings	Flat or Unit
SPAC	56.1%	43.9%
Greater Perth	**91.9%**	**8.1%**

Much of the SPAC's housing stock are two or three bedrooms offerings, with a low proportion of one bedroom dwellings and even lower proportion of four or more bedrooms in the apartment and semi-detached dwelling market.

Table 6 Share of Bedrooms by Dwelling Type, SPAC, 2016[xxxii]

Dwelling Type	Bedrooms	SPAC
Detached House	Three Bedroom	33.3%
	Four Bedroom or More	66.7%
Semi-Detached Dwelling	One Bedroom	14.9%
	Two Bedroom	47.8%
	Three Bedroom	34.7%
	Four Bedroom or More	2.6%
Unit and Apartment	One Bedroom	9.7%
	Two Bedroom	54.9%
	Three Bedroom	34.8%
Total Occupied Stock	One Bedroom	12.5%
	Two Bedroom	49.9%
	Three Bedroom	34.8%
	Four Bedroom or More	2.6%

It is important to note that there was only a marginally above average proportion of homes rented in the SPAC (24.2% compared to 23.4% in Greater Perth). Given the proximity to the CBD and higher proportion of higher density housing stock, this result is unexpected. It likely reflects the higher proportion of older families in professional industries and higher incomes, translating to higher shares of home ownership.

The SPAC has not seen a significant increase in dwellings over the past five years, although there has been notable planning and construction of apartments and townhouses. Major examples include:

Table 7 Key Developments, South Perth[xxxiii]

Name	Sample Image	Characteristics
Pinnacle South Perth		▪ **Location**: 30-34 Charles Street South Perth. ▪ **Products**: One Bedroom Apartments, and two-bedroom two-bathroom apartments. ▪ **Completion**: Completed late 2016. ▪ **Target Market**: Investors, lone persons and older couples without children, with primarily 1-bedroom products available selling for upwards of $500,000, and a limited number of 2-bedroom apartments selling for upwards of $800,000.
Aurelia South Perth		▪ **Location**: 1 Harper Terrace South Perth. ▪ **Products**: 118 apartments, 1 bed from $455,000, 2 beds from $725,000, 3 beds from $990,000. ▪ **Completion**: 2018. ▪ **Target Market**: Investors, Young professionals, and families with children who would occupy three-bedroom products.

3.2.5 Employment Trends and Attributes

The SPAC is a recognised boutique inner city economic hub in Greater Perth. Its strategic position opposite the Perth CBD, adjacent to Perth Water and with direct access to major arterial road and public transport options, affords the Area with significant economic advantages and potential.

In 2015, there were approximately 2,302 jobs in the SPAC[xxxiv]. The bulk of employment was within Office/Business, which comprised 74% of employment. The next biggest share of employment was Shop/Retail (15%), followed by Entertainment/Recreation/Culture (6%). The PLUC with the highest share of land use and was also Office/Business (53%), followed by Shop/Retail (11.4%), then Entertainment/Recreation/Culture (9%).

Table 8 Land Use and Employment, South Perth Activity Centre, 2015xxxv

Corresponding PLUC	Land Use	PLUC Code	Square Metres	Employment
Manufacturing/Processing/Fabrication	Manufacturing	MAN	150	6
Storage/Distribution	Storage	STO	5,904	5
Service Industry	Service Industry	SER	977	32
Shop/Retail	Shop	SHP	8,172	352
Other Retail	Other Retail	RET	200	17
Office/Business	Office	OFF	37,527	1,695

Corresponding PLUC	Land Use	PLUC Code	Square Metres	Employment
Health/Welfare/Community Services	Health	HEL	934	41
Entertainment/Recreation/Culture	Entertainment	ENT	6,705	138
Utilities/Communications	Utilities	UTE	5,278	16
Vacant			5,561	0
	Total		**71,408**	**2,302**

The SPAC experienced a decline in the level of employment between 2007 and 2015. This decline is primarily attributable to the impacts of the GFC and then the wind down of the mining sector.

Table 9 Land Use and Employment, SPAC, 2007-2015[xxxvi]

Year	Establishments	Square Metres	Employment
2007/08	1,211	67,325	2,955
2015/17	-	71,408	2,302

In terms of floor space, the amount of employment-support floor space increased from 67,325sqm in 2007/08 to 71,408sqm in 2015/17. This change, coupled with the decline in local employment, has impacted local employment-to-workspace ratios. Workspace ratios are the amount of floor space of Gross Floor Area in sqm required per worker. In 2015, the SPAC had the following workspace ratios.

Table 10 Workspace Ratios, SPAC, 2015-17[xxxvii]

Planning Land Use Category	Workspace Ratio
Entertainment/Recreation/Culture	49
Health/Welfare/Community Services	23
Manufacturing/Processing/Fabrication	25
Office/Business	22
Primary/Rural	0
Residential	0
Other Retail	0
Service Industry	31
Shop/Retail	23
Storage/Distribution	1,181
Utilities/Communications	330

3.2.6 Commercial Office Overview

There is approximately 37,527sqm of commercial office floorspace currently in the SPAC. While the total amount of floorspace increased from 2007 to 2015, the amount of occupied office floorspace decreased by 5,089sqm. Commercial office floorspace is dispersed across the activity centre, with the highest concentration on Judd street, to the south of Mill Point Road, and to the west of Labouchere Road.

The level of vacant floorspace within the centre also appears to have increased from 2007 to 2015, from 1,989sqm to 5,561sqm.

Much of retail provision (5,692sqm of 8,172sqm) is in the Mends Street Precinct, though this Precinct is also seeing the largest amount of vacant floor space (2,719sqm).

As highlighted earlier in this Assessment, the commercial office market more broadly across Perth is undergoing a sustained period of high vacancies in response to easing demand for floorspace, downsizing and cost cutting across the resource sector and large increases in supply in recent years.

The broader CBD market has felt the brunt of easing commercial market conditions, which has flown from the CBD to inner city secondary office markets like South Perth. In 2015, the South Perth office market was seeing a considerable level of vacancy at 13.1% in 2015.

There are currently several new developments under construction or proposed in the South Perth area, with the Richardson Centre on Richardson Street set to offer nine floors of premium floorspace (approximately 4,000sqm of office floorspace), and most new apartment developments offering office and/or retail space on the lower floors as part of mixed use provisions.

In terms of retail floorspace, the new Mends Street arcade is set to become a substantial shopping centre for specialty retail within the existing retail hub along Mends Street, offering tenancies between 52-112sqm.

3.3 Key Attributes and Drivers of SPAC

South Perth, including the SPAC, is strategically located to leverage the future growth potential of Greater Perth. There are several attributes and indicators that will influence the role and function of the SPAC in helping to meet this regional growth challenge sustainably for residents and businesses. These include:

- ***Mixed Age Population Profile*** – the SPAC is characterised by a unique mix of younger adults and workers and older workers and retirees.
- **Households** - Family households (including couples with no children) are the most prominent household types in the area, followed closely by lone person households.
- ***Declining Population*** – the residential population has declined marginally but steadily in recent years, peaking at 2,750 in 2011.
- ***Higher Incomes*** – incomes are significantly higher than the State average, with the share of individuals earning more than $3,500 a week accounting for 1 in every 4 residents.
- ***Strong Use of Public Transport*** – public transport usage is notably higher than the Greater Perth average, with the share of bus and ferry usage particularly strong. Despite this, 60% of residents still use a car to travel to work, which is a very high proportion for an inner-city location and likely reflects the lack of local rail station.
- ***Declining Employment –*** employment over the past 8-10 years has declined by 600 jobs, reaching a low of 2,302 in 2015. The decline is primarily in the commercial office land uses, including professional services and mining sectors, reflecting the impact of the GFC and then the wind down of the mining investment cycle.
- ***Increased Commercial Floor Space and Vacancies*** - the floor space in the SPAC increased over the past 10 years. However, given the decline in employment during this time, property vacancies have increased.
- ***Housing Stock Somewhat Diverse –*** the housing stock of the SPAC is more diverse than the State average with higher shares of flats and units. However, the share of detached and lower density housing stock is higher than would be expected for an inner-city river front location.
- ***New Housing Development*** – almost 400 apartments are either recently constructed or under construction at present, which is expected to drive population growth in the SPAC in the short-term.

4.0 Capacity for Growth

This section qualitatively assesses the capacity of the SPAC to grow, based on four key drivers of capacity. This assessment investigates the prospects for the activity centre through the prism of its economic, social and physical attributes and performance within a regional context to identify the key comparative advantages and assets to leverage. This assessment is also fundamental to the identification of current and emerging opportunities and priorities.

4.1 Assessing the Capacity for Growth

This study has undertaken an assessment of the capacity for growth in the SPAC using the "Four Cs Assessment" approach for economic development.

The "Four Cs" approach provides the critical analysis required to identify and understand the strength and direction of an economy. The "Four Cs" are:

- **Capital** – human capital, particularly skills, education, innovation and social capital are fundamental inputs to economic activity and crucial to competitiveness, resilience and social and cultural sophistication;
- **Communities** – economically and environmentally sustainable communities and population growth;
- **Connections** – access to international, national and regional markets; and
- **Competitiveness** – business competitiveness.

4.2 4Cs Assessment Results

This assessment has drawn on key input from a range of stakeholders as well as targeted research. The findings have been summarised in the table below.

Table 11 Four Cs Assessment Summary

	Advantages	Challenges
Capital	▪ **Skilled workers** – consistently high proportion of population with high education, due to being centrally located, with a focus on high density living ▪ **Education and research** – near UWA and Curtin University, as well as educational institutions in the Perth CBD ▪ **Inner-city Location** – Potential to become a popular alternative to Perth CBD due to proximity to city and amenity ▪ **Close to research facilities** – With the new Pawsey Supercomputing centre complementing existing research facilities around technology park in Kensington	▪ **Ongoing education** – low levels of ongoing education whilst in full-time employment ▪ **High property values** – high property values make living in the area less viable for entrepreneurs, and increases cost of office space ▪ **Lack of institutions** – no tertiary education institutions in the centre make the area less likely to become an education centre ▪ **Lack of Rail** – Lack of a train station reduces accessibility for workers and students
Communities	▪ **Established community** – Centrally located and safe community ▪ **Local visitation** – high rate of visitation with the zoo and foreshore attracting local and international visitors	▪ **Slower population growth** – population growth rate currently low ▪ **Families with children**– lower levels of family with children households, due to very high shares of cuple with no children

	Advantages	Challenges
	▪ **Young adults** – a substantial proportion of working age young professional adults ▪ **Diverse economy** – significant diversification of industry, with a significant amount of office space ▪ **Sport and recreation** – sporting ovals and facilities dispersed across activity centre are attractive to residents ▪ **Urban amenity and vibrancy** – dedicated entertainment district and retail facilities ▪ **Events profile** – significant and appealing regional events	housholds. ▪ **Elderly residents** – high proportion of elderly residents, with low levels of age-specific accommodation ▪ **Affordability** – dwelling and commercial spaces do not compare favourably to areas outside of the inner city ▪ **Unstable industry** – the number of businesses has declined recently ▪ **Lack of identity** – difficulty in clustering common economic land uses and industries
Connections	▪ **Established bus and ferry transport** – already serviced by bus and ferry services for residents and visitors. ▪ **Access to major road networks** – proximity to Kwinana freeway and Canning highway ▪ **Strong bike infrastructure** – good bike infrastructure allowing access to Perth CBD, and along the Swan River	▪ **No train facility** – there is currently no train station in the SPAC, reducing connectivity ▪ **Constrained road network** – the current road network will be under pressure from more residents and workers in the future from higher density commercial and residential dwellings ▪ **Local cycling infrastructure** - on streets within the SPAC, including connection with regional cycling routes, is poor
Competitiveness	▪ **Desirable location** – the activity centre is centrally located and attracts visitors from across the Greater Perth Area ▪ **Tourism assets** – prominent tourism assets such as the zoo, the foreshore, and the Mends street entertainment area ▪ **Office floorplate diversity** – variety of different floorplates for different business needs within the centre ▪ **Growing accommodation facilities** – increasing number of accommodation providers in the catchment for visitors	▪ **Inflexible planning controls** - relatively restrictive development controls ▪ **Low density** – relatively low residential density that will not accommodate necessary growth ▪ **Competition** – increased competitive pressure from established and emerging employment centres, including established corporate clusters (e.g. West Perth, law and finance in the Perth CBD)

4.3 Implications for SPAC

Overall, the recent decline in population and housing in the SPAC indicates that the Precinct is not currently fulfilling its full economic and social potential and has capacity for growth. The Area possesses considerable local and regionally significant amenities and economic assets, providing residents and business alike with access to opportunities in the wider region through major road and public transport access. The presence of natural amenities (including Perth Water and the foreshore), coupled with a major attractor (namely Perth Zoo) also supports considerable tourism visitation.

Similarly, the SPAC also possesses higher shares of detached and lower density housing than expected for an inner-city river front location. Public transport usage, while above average, is ultimately constrained by the lack of access to passenger rail.

Opportunities exist to enhance and intensify the urban form of the SPAC. Doing so will require a strong focus on urban regeneration and revitalisation, not only increasing the density of development but doing so in a

way that enhances and sustains a high quality of life for new and existing residents, workers, businesses and tourists to the area.

5.0 Growth Scenarios

The future growth of any location is unknown and significant uncertainty exists around the role and function the location will play in the regional economy. Moreover, factors such as technology and shocks can interrupt predictable forecasts.

To provide insights into the future growth potential of the SPAC, RPS has prepared a series of growth scenarios for both population and employment. These scenarios are based on different levels of contribution of the SPAC to the local and regional population growth and economy out to 2041.

5.1 Role and Function Scenarios

Both population and employment assessments examine the potential outcomes for the SPAC under four distinct scenarios:

- **Base** – continuation of current shares of population and employment and growing in line with historical contributions and future regional growth trends.
- **Low** – marginal increase in the role and function of the Centre, resulting in a minor increase in both population and employment shares of regional activity.
- **Medium** – moderate increase in the role and function of the Centre, resulting in a notable increase in both population and employment shares of regional activity.
- **High** – large increase in the role and function of the Centre, resulting in significant increases in both population and employment shares of regional activity.

The modelling undertaken for each of these scenarios is **unconstrained**, meaning issues such as local land availability, infrastructure capacity and local market expectations and servicing capacity have not been considered. This approach is critical in ensuring that the assessment examines the full economic and social potential of the Area, rather than a future profile that is capped by existing infrastructure and investments.

5.2 Population Scenarios

RPS has modelled age-specific population growth and composition for the SPAC across the four role and function scenarios outlined above.

5.2.1 Approach and Assumptions

To model local population scenarios, RPS has utilised forecasts from Forecast ID for the suburb of South Perth. Rebased through to 2041, these projections are outlined below.

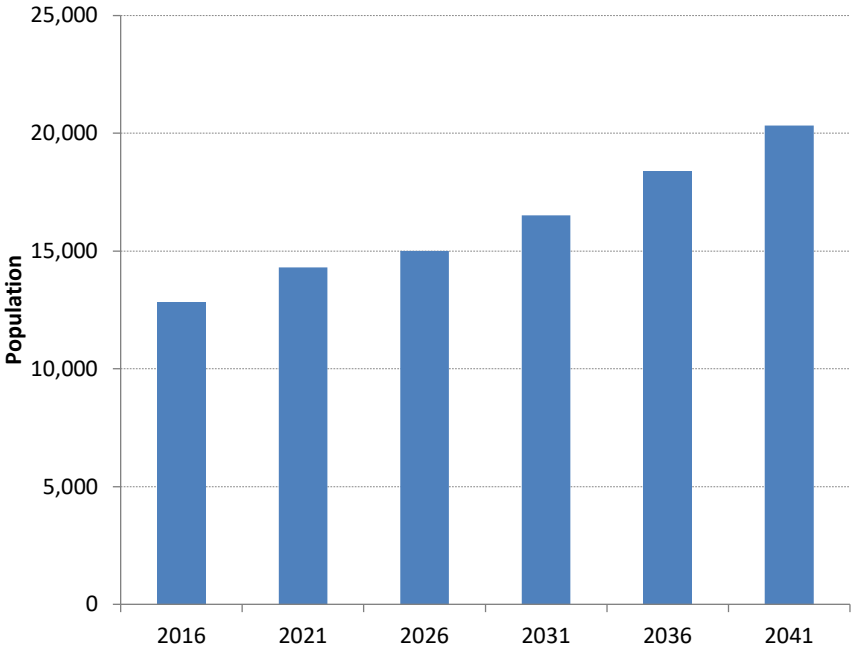

Figure 17 Population Forecasts, South Perth Suburb, 2016 to 2041[xxxviii]

RPS has tested the impact on local population, by varying the share of the suburb population accommodated in the SPAC by 2041. Currently, one in five residents of South Perth reside within the SPAC, which forms the Base Case for testing.

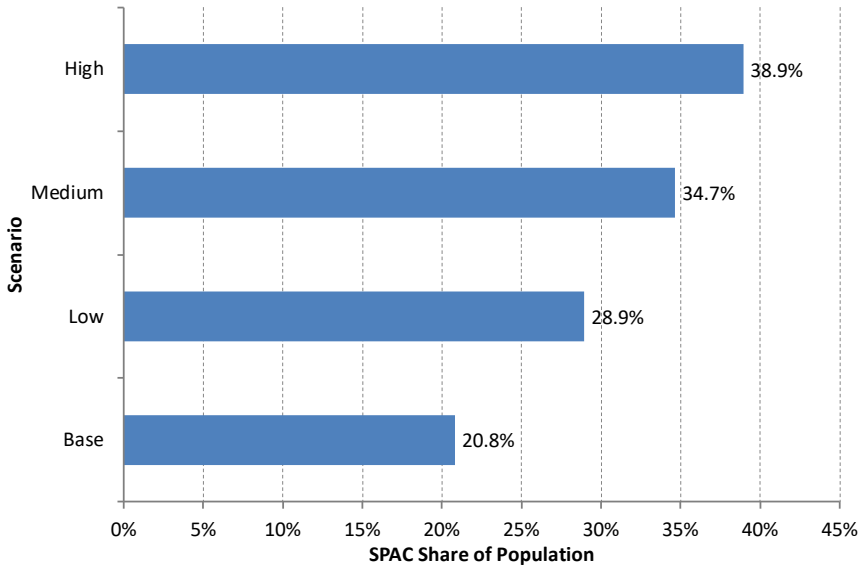

Figure 18 SPAC share of Suburb Population, by Scenario, 2041

In preparing and reviewing these scenarios, a number of factors were considered, including:

- Business as usual growth is unlikely to continue for a number of reasons (including those that follow), and consequently no scenario considering less than 20.8% should therefore be considered.
- The existing density and multi-residential style of development in the SPAC includes some supporting infrastructure and services which will in turn attract more demand for people seeking an apartment lifestyle.
- The state government, via the Western Australian Planning Commission (WAPC), provides substantial policy direction supporting well-located infill development.
- The suburban balance of South Perth is considerably fragmented, and would offer limited opportunity for apartment living, and lifted chance to comprehensively redevelop the site.
- WAPC has a preference for coordinated infill, based on precinct-wide planning surrounding a centre of activity. This is a fundamental planning principle and therefore unlikely to change significantly.
- The SPAC has considerable place appeal, due to its river setting, appealing public realm, and opportunities for unique experiences, which are unlikely to change.
- Cities growing as Perth is projected to attract significant demand for dwellings close to the city, near the river and good transport connections.
- Conversely, as the city continues to grow in population, more people will consider the distance and commute from large lots at the edge of suburbia less convenient than an apartment lifestyle, increasing demand across a range of household types.

Other key assumptions include:

- Average household sizes in line with Forecast ID estimates;
- Dwelling occupancy rate of 65% in 2016, based on current estimates for 2016 for the area, increasing to 80% by 2041, based on benchmark locations; and
- Age profile in line with Forecast ID estimates for the suburb of South Perth.

5.2.2 Population Results

Based on the approach and assumptions outlined above, RPS assessed the population growth for the scenarios. The results are outlined below.

Table 12 SPAC Population Scenarios, 2016 to 2041

Population	2016	2021	2031	2041	Change (2016-2041)
Base	2,675	2,978	3,436	4,230	1,555
Low	2,675	3,181	4,188	5,881	3,206
Medium	2,675	3,298	4,667	7,046	4,371
High	2,675	3,375	5,004	7,913	5,238

Under the Base Case scenario, the population of the SPAC will increase over the next 25 years to 2041. This is in line with population growth expectations for the wider suburb and reflects the existing structure of the SPAC continuing into the future. This base case scenario, keeping in line with the existing structure, seeks to provide context around what happens in the SPAC should all things remain constant.

If the role of the SPAC increases and shifts away from its current structure, the population of the Area will increase by 3,206 people under the Low Scenario, 4,371 under the Medium Scenario and almost 5,238 people under the High Scenario.

Given these projections, the population of the SPAC could increase by approximately 1,555 to 5,238 people between 2016 and 2041. This represents the population potential of the Area over the assessment period.

5.2.3 Age Profiles

RPS has examined the population age profile forecast by ForecastID for the suburb and identified the shares of the population for major age groups under the Base Case.

Table 13 Age Group Share of Population, SPAC, Base Scenario, 2016 to 2041

Age Group	2016	2031	2041
0-14	12.2%	13.0%	12.9%
15-24	12.8%	14.8%	14.7%
25-44	32.2%	32.0%	31.6%
45-64	26.4%	22.8%	23.6%
65+	16.3%	17.5%	17.3%

The Breakdown by age groups for the Base Case scenario is outlined in the following table.

Table 14 Population, by Age Group, SPAC, Base Scenario, 2016 to 2041

Age Group	2016	2031	2041
0-14	328	383	458
15-24	344	454	558
25-44	859	1121	1436
45-64	707	749	916
65+	437	729	862
Total	**2675**	**3436**	**4230**

5.2.4 Dwelling Requirements

This population will require additional housing. Based on the dwelling occupancy and household size assumptions, RPS estimates that by 2041, a total of between 2,554 and 4,778 dwellings are needed, depending on the scenario involved.

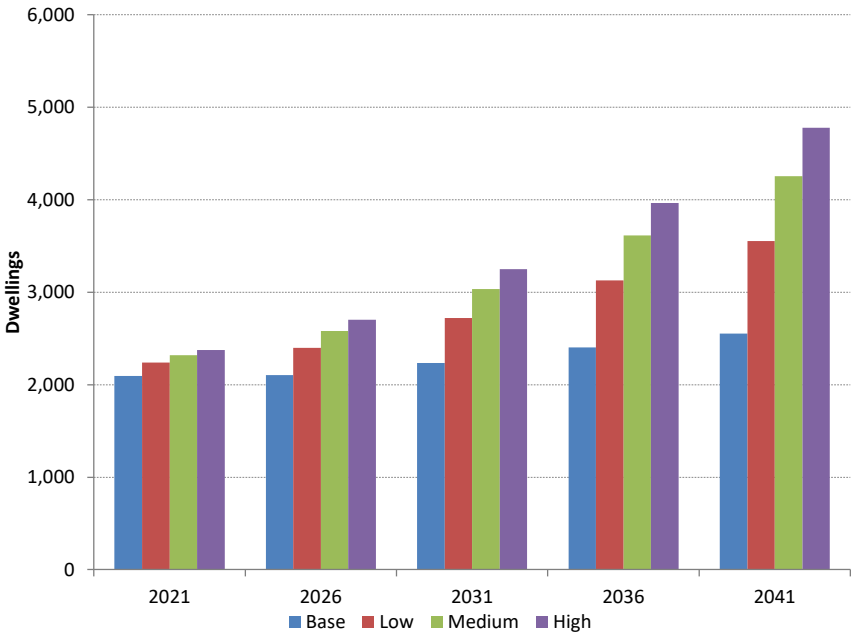

Figure 19 Total Dwellings, SPAC, by Scenario, 2021-2041

5.2.5 Key Findings

Overall, even under the Base Case, with no change in the role and function of the SPAC, the population and dwelling requirement for South Perth Activity Centre will need to increase over the next 25 years.

The Base Case, however, is not a realistic frame of reference for planning the future of the SPAC. Firstly, it also presumes that current approaches to population settlement and dwelling construction continue "business as usual" with limited responses by the market from increased policy incentives and drivers.

A number of factors indicate that a higher growth scenario is likely, including:

- The amenity appeal of a river location;
- The market forces increasingly reflecting demand for inner city lifestyles;
- Government policy support for infill development;
- The existing apartment lifestyle in South Perth attractive further interest from prospective residents;
- The growing broader appeal of apartments to a range of household types, further inflating demand; and
- The "place appeal" of South Perth, likely to amplify local demand, consequently leading to South Perth outperforming other inner city areas as a desirable place to live.

Underestimating demand raises the risk that any ACP will not provide sufficient capacity and flexibility to accommodate forecast demand due to emerging demographic trends and market forces. If this demand is not accommodated, and therefore "unplanned" concern is that population growth pressures in the SPAC will result in a series of perverse outcomes being realised contrary to the vision of the City of South Perth, or of key strategic decisions on the future of the precinct not being made locally. Most significant would be the continued worsening of housing affordability in the area, as housing demand outstrips supply and price pressures increase.

It will also result in more ad-hoc responses to meeting demand. This likely minimises the opportunity for development design to be optimised to limit the impact of increased density on the urban realm through incorporating increased ground floor activation and permeability.

RPS recommends ***that the ACP consider the Medium and High growth scenarios*** for the preparation of planning controls for the SPAC.

Key Assumptions should include:

- Population of approximately 5,000 residents in SPAC by 2031, rising to between 7,000 and 8,000 by 2041.
- Allowance for approximately 3,000 dwellings in SPAC in 2031, rising to between 4,250 and 4,800 dwellings by 2041.

5.3 Employment and Floor Space

RPS has modelled employment and floor space growth and composition for the SPAC across the four role and function scenarios outlined above.

5.3.1 Approach and Assumptions

The modelling of local employment in the long term is challenging. Unlike population, where prevailing population trends and changes in migration and natural increases to an area are generally less volatile, the nature and composition of employment and how it is accommodated and facilitated can change rapidly.

The Australian Government Department of Employment projections for regional employment in Australia typically only extend 5 years into the future. However, RPS has extended the projections for the Perth-South East region to 2041 utilising historical trends in industry employment from the ABS. This industry-specific data has then been converted to align with the Planning Land Use Categories (PLUC), utilised by the WAPC and Department of Planning. This ensures that the projections can be based on current employment estimates for the SPAC derived from the Department of Planning's Land Use and Employment Survey 2015-2017.

Key assumptions in this scenario testing include:

- Scenarios are differentiated by adjusting the SPAC share of the wider Perth-South East SA3 employment estimates for 2017 across each of the land use categories.
- RPS has applied current workspace ratios for the SPAC to future employment projections under each scenario, assuming that no further changes in workspace densities occurs during the assessment period.
- RPS has assumed that the current land use category mix in the SPAC stays broadly the same, with limited to no additions of Primary Industries, large format retail, and limited storage or utilities employment.

The population scenarios assessed in this report were not inputs into the employment analysis. They were however, used to validate employment scenarios using employment-to-population ratios at select points in the assessment period. This approach ensured a degree of alignment in the scale and scope of potential development (residential and non-residential) in the scenarios, without making the employment scenarios contingent on the estimated population movements.

It should be noted that RPS has not expressly modelled the employment and floor space impact of any potential future rail station in the SPAC. While such an investment would likely have significant implications for future floor space need and employment generation, a lack of certainty regarding the timing of the station make modelling employment impacts within a scenario assessment approach impossible.

5.3.2 Employment Results

As expected, the employment potential of the SPAC is significant, with the number of jobs in the area (2,302 jobs) having the potential to increase by 76.3%, as a minimum over the next 24 years. This increases marginally under the Low scenario to over 4,451 jobs (or 93.4%) by 2041, while employment has the potential to more than double under the High scenario to 5,485 jobs.

Table 15 Employment, SPAC, 2017 to 2041, by Scenario

Total Employment	2017	2021	2031	2041
Base	2,302	2,525	3,193	4,059
Low	2,302	2,556	3,332	4,451
Medium	2,302	2,605	3,562	4,892
High	2,302	2,655	3,806	5,485

A review of the land use breakdown of this employment confirms that Office-based employment is expected to be the largest contributor to total jobs in 2041 under each scenario, with between 3,256 and 4,345 office jobs by that date. Note, this does not necessarily mean these jobs will be in commercial office buildings, as about 75% of jobs at the Perth Zoo classified as Office in terms of underlying land use.

Notable growth is also expected in Entertainment and Shop Retail land uses.

Table 16 Employment, SPAC, by PLUC, 2041

PLUC	Base	Low	Medium	High
Entertainment/Recreation/Culture	236	281	315	354
Health/Welfare/Community Services	42	44	46	49
Manufacturing/Processing/Fabrication	6	6	6	6
Office/Business	3,256	3,446	3,870	4,345
Service Industry	34	38	38	41
Shop/Retail	462	612	594	667
Storage/Distribution	5	5	5	5
Utilities/Communications	18	19	18	18
TOTAL JOBS	4,059	4,451	4,892	5,485

5.3.3 Floor Space

Applying assumed work space ratios, RPS estimates that the SPAC has the potential to support between 97,650sqm and 127,750sqm of employment floor space by 2041, not including Shop Retail (examined separately in section 7.0). This is a significant increase from the 63,000sqm of commercial floor space (excluding Shop Retail) in the SPAC in 2015. Office land uses will likely account for the largest share of total floor space by 2041, reaching between 70,000 and 96,000 sqm Gross Floor Area (GFA) depending on the Scenario. Again, this reflects the fact that even under a Base Case scenario, with the economic importance and function of the SPAC not changing, there is likely to be sufficient demand to support a greater than 50% increase of employment floor space over the next 24 years.

Table 17 Total Non-Residential Floor Space (sqm), SPAC, by PLUC, 2031 and 2041

2031				
PLUC	Base	Low	Medium	High
Entertainment/Recreation/Culture	9,163	10,142	10,853	11,611
Health/Welfare/Community Services	945	967	1,002	1,037
Manufacturing/Processing/Fabrication	151	150	150	150
Office/Business	54,921	56,763	60,745	64,985
Service Industry	9,543	10,312	11,047	11,829
Storage/Distribution	5,927	5,904	5,904	5,904
Utilities/Communications	5,699	5,660	5,660	5,660
TOTAL FLOOR SPACE (exc. Shop Retail)	**86,348**	**89,898**	**95,360**	**101,176**

2041				
PLUC	**Base**	**Low**	**Medium**	**High**
Entertainment/Recreation/Culture	11,454	13,630	15,310	17,187
Health/Welfare/Community Services	953	992	1,053	1,117
Manufacturing/Processing/Fabrication	151	150	150	150
Office/Business	72,090	76,285	85,686	96,193
Service Industry	1,045	1,101	1,169	1,241
Storage/Distribution	5,944	5,904	5,904	5,904
Utilities/Communications	6,020	5,949	5,949	5,949
TOTAL FLOOR SPACE (exc. Shop Retail)	**97,657**	**104,011**	**115,221**	**127,741**

Note that RPS has not estimated that the floor space need for the Shop/Retail land use using the employment trends outlined above. This reflects the fact this approach does not take into consideration potential changes in consumer behaviour and retail need in the wider catchment. Instead, RPS has examined retail floorspace, using an expenditure approach in section 7.0.

5.3.4 Key Findings

The SPAC has a series of unique attributes that make it particularly attractive for both population and visitor servicing sectors and niche commercial office-based businesses. The amenity of the area attracts workers from outside of SPAC to seek employment in the Area. This enables the Area to deliver higher quality and a more diverse range of services than the local population alone could support.

The reliance on commercial office employment for growth of the SPAC, under the Medium and particularly the High Scenarios is difficult to justify. South Perth is recognised as a boutique office market in Greater Perth, with locations such as West Perth, East Perth and increasingly Northbridge playing the primary roles as CBD expansion/overflow of long-term office demand. It is difficult for SPAC to compete with these locations in the short-to-medium term, despite possessing a range of amenity and lifestyle advantages.

The present capacity in the commercial office market in the Perth CBD means it is difficult to justify any significant commercial office increases SPAC until there is sufficient demand to fill existing capacity. This does not preclude long-term investment and development in commercial floor space. However, such development is likely to be predominantly contingent on the delivery of the rail station, as this would help to reinforce the role of South Perth as an intervention point in northerly worker flows along the Kwinana Freeway and the rail line prior to entering the Perth CBD. It would also increase the level of accessibility of businesses to the CBD via public transport, reducing the higher than expected dependence on private motor vehicles that currently characterises the area.

Instead, focus should be afforded to maximising the Office employment generated from non-traditional floor spaces (as part of other uses) and Entertainment and Shop Retail activities. These sectors align very closely in their need for amenities and facilities with the local residential population, resulting in access by residents to higher quality and greater variety of services than currently provided.

RPS recommends ***that the ACP consider the Low and Medium growth scenarios*** for the preparation of planning controls for the SPAC. Note that shop retail floor space is considered separately in section 7.0.

Key Assumptions should include:

- Allowance for approximately 3,400 jobs in SPAC in 2031, increasing to 4,900 jobs by 2041.
- Allowance for approximately 110,000sqm of floor space in SPAC by 2041 (excluding Shop Retail).

6.0 Tourism Projections

As identified in the employment and floor space assessments above, shop retail and entertainment land uses represent major economic opportunities for the SPAC, combining demand from local residents, regional visitors and tourists alike to support local service delivery.

So far in this assessment, RPS has examined the potential of these sectors from the perspective of regional employment shares based on the possible role and function of the SPAC. In this section, specific projections have been developed for the individual sector utilising a more targeted methodology.

6.1 Tourism Projections

The tourist industry is a major contributor to the Western Australian and South Perth economy. Estimates from ID put the total value of sales associated with tourism and hospitality at over $250m per year with a local gross value added of almost $109m[xxxix]. This supports over 1,100 direct and indirect jobs in the South Perth Council Area. Overall tourism and hospitality accounts for almost 5% of the City of South Perth economy, double the share for Western Australia as a whole.

6.1.1 Tourist Projections Approach

RPS has analysed data from Tourism Research Australia's National and International Visitor Surveys for the South Perth-Kensington SA2. This data includes historical estimates of daytrip, domestic overnight and international visitation to the SA2, which includes the SPAC.

Additionally, RPS has analysed tourist projections for the Experience Perth tourism region. This data includes 10 year projections of tourist visitor nights (number of visitors by the average length of their stay).

RPS has derived the visitor-type specific growth rates for Experience Perth and applied these to the actual visitation rates to South Perth-Kensington SA2. Post 2027, a consistent growth rate has then been applied (based on the 2026/27 annual rate) out to 2041.

The advantage of this approach is that it allows for the compositional change in tourists between daytrip, domestic overnight and international overnight to be considered and for the mix to evolve over time.

Note, visitors that travel less than 20km to South Perth do not constitute tourists for the purpose of this assessment. These visitors are regarded as within the local catchment of a tourist destination and their expenditure and activity are generally accounted for in local expenditure data sets.

Finally, the smallest geography at which tourist projections can be developed is the SA2 level. This geography is larger than the SPAC, though RPS considers it likely that the SPAC would account for the vast majority of expenditure-related visitation to the SA2, as the principal tourist servicing centre and as home to major attractions like Mend Street, the foreshore and Perth Zoo.

6.2 Recent Performance

Overall, the tourist visitation to South Perth has grown strongly in recent years, increasing from 63,000 visitors in 2007 to 119,000 visitors in 2017. These visitors in turn stayed for over 400,000 days/nights in 2007, though visitor nights in subsequent years have been highly volatile due to changes in average lengths of stay – ranging from over 700,000 visitors nights in 2012 to 345,000 in the year to June 2017. In 2016, a combination of seasonal attractions at Perth Zoo and a more traditional length of stay for international tourists saw total visitor nights/days increase to over 697,000. This underlines the inherent volatility of annual

visitation numbers. However, overall the trend has been positive and growing strongly across both number of visitors and visitor nights[xl].

6.3 Projection Results

Based on the approach outlined above, RPS estimates that the number of visitors to South Perth will increase to 135,000 in 2021, and 238,000 by 2041. This growth is expected to be fastest among international visitors (off a smaller base), though domestic day trip visitors are expected to account for the largest share of visitors in 2041 at 57%.

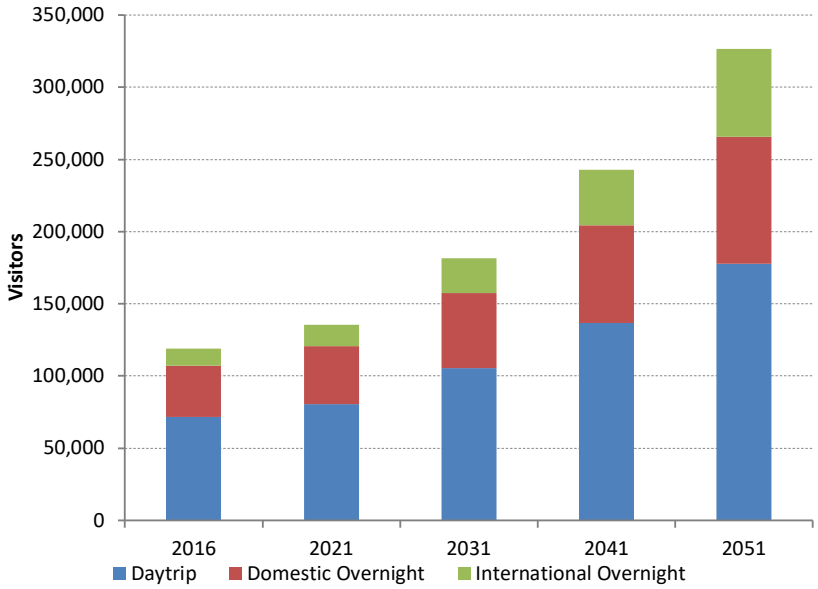

Figure 20 Projected Tourist Visitors, South Perth-Kensington SA2, by Type

6.4 Key Implications for SPAC

The scale and mix of tourist visitation to the wider South Perth SA2 area are expected to change over time. Total visitor numbers are expected to almost triple over the period to 2051, with international overnight visitors expected to play an even greater role in future visitation.

Despite this, SPAC and South Perth generally will continue to primarily be a day trip market. This is primarily due to the area's proximity to the Perth CBD with its concentration of hotel and short-stay accommodation, and the popularity of attractions such as the Zoo and foreshore with residents across Greater Perth.

This tourist visitation will generate demand for a range of different services and facilities in SPAC, including the expansion and diversification and tourist activities, greater shares of both formal and informal tourist accommodation and improved and enhanced transport accessibility.

7.0 Retail Need Assessment

Analysis has been undertaken in this report on the employment scenarios for the ***Shop Retail land uses*** in the SPAC. That assessment was based on the potential role and function of South Perth in meeting the wider regional shop retail needs. As such, it is expected that this employment figure, and associated floor space, will be closely linked to population growth in the wider region.

Traditional retail needs assessments, including those required under SPP 4.2 and prepared by Local Governments around the State, have generally been prepared as part of Local Commercial Strategies. Alternatively, retail need assessments are undertaken by proponents of major retail developments for consideration by Councils or DAPs and rely almost entirely on the demand generated by the residential population in the catchment.

However shop retail demand, in locations such as South Perth, can be generated from a range of non-residential sources. Two common types include:

- Tourists and visitors; and
- Non-resident workers (workers who have travelled from outside of the retail catchment to the site for work). This can include permanent and transitory workers.

Each of these types of non-residential sources of retail expenditure must be analysed separately and collated with residential demand to determine total demand for retail floor space in the SPAC.

7.1 Trends in Retail

Long-term projections and assessment of retail expenditure and floor space are challenging. The retail sector has and will continue to be impacted by a diverse range of generational, fiscal, technological and feasibility factors that have the potential to fundamentally alter the level of retail floor space demand in SPAC.

A number of critical trends have been summarised below.

7.1.1 Online Retail and the Changing Role of Shops

The retail shopping environment now encapsulates both physical retail stores and a parallel online retail offering.

Significant growth in online retail sales over the past decade (averaging 2% per month since November 2014[xli]) has corresponded with a significant slowing in the growth of expenditure at traditional stores (slowing to an average growth of only 0.25% per month or half the rate of growth in in mid 2000s[xlii]).

However, this trend has varied significantly across retail categories, with online retail and wider economic conditions impacting individual retail categories differently. The impact of online retail on traditional physical stores therefore depends greatly on the range of products stocked in different stores and shops.

One approach that has been increasingly adopted by physical retail outlets is to better integrate retail offering with existing and new online retail models. This has included:

- **Virtual Shop Front**: establishing their own virtual retail portal or shop front that provides the customers with access to the same products as physical stores; and
- **Online Portal Participation**: participating in an existing independent (i.e. not owned or operated by the retailer) portal such as eBay, GroceryRun.com and Amazon.

Similarly, there is a large diversity of how the goods and products purchased online are delivered to the final customer. This reflects the online retail model involved, the nature and characteristics of the product and the preferences of the customer themselves.

Some delivery models have limited to no involvement by traditional shops (i.e. delivery of the product from a warehouse directly to the customer's place of residence or work), while other delivery models see physical retailers playing a more active role. Examples of the role that physical shops can play in online retail transactions and product delivery:

- **Collection Node** – the customer collects the product purchased online from a physical retail shop;
- **Distribution Node** – the physical shop fills the customer's online order and then dispatches the order via small courier or post;
- **Delivery Hub** – the physical shop fills the customer's online order then facilitates delivery by truck; or
- **Showroom** – the physical shop provides the opportunity for customers to "try" the product before they purchase online.

To adapt to this trend and maintain relevance within an increasingly online retail environment, physical retailers are making changes to play one or more roles. Examples include:

- Supermarkets are increasingly offering grocery deliveries to the customers within the "catchments" of its physical shops, using small delivery trucks owned and operated by the retailer. This currently accounts for approximately 2% of all supermarket sales in Australia, which is expected to double to 4% or $5.8b by 2020.
- Retailers such as Nespresso are rolling out new stores with significant reduced shelf capacity to accommodate in store product training and "taste-testing" for customers, reflecting the fact that 80% of the retailer's sales are now online.

7.1.2 Demographic and Generational Change

Australia's population is undergoing a demographic and generational transformation that has implications with a diverse range of sectors of the economy, including retail.

In the past, Australia was a relatively youthful country. However, recent Intergenerational Reports have revealed that the combination of 20 years of sub-replacement level fertility rates and the "population bubble" caused by the flow of the Baby Boomers, will result in the proportion of the population aged over 65 years double to over 21% per cent by 2051[xliii].

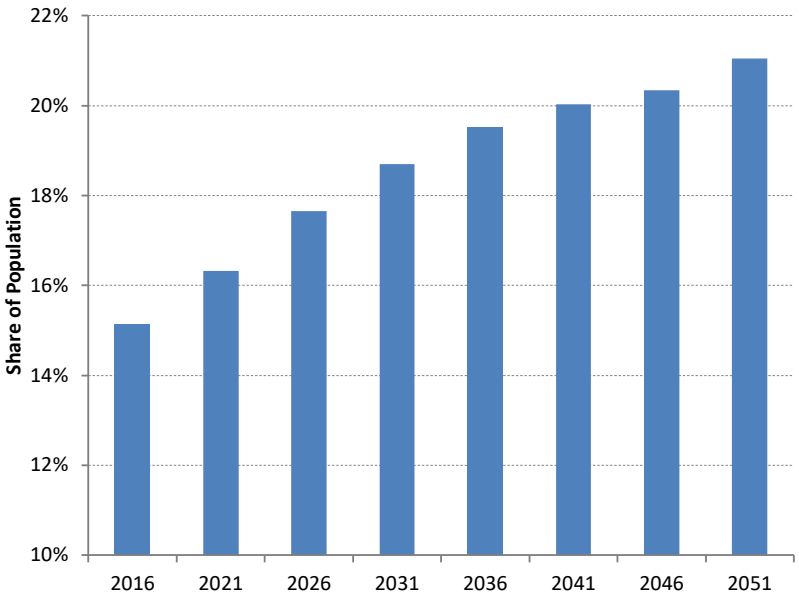

Figure 21 Share of Population aged 65+, Australia, 2016 to 2051

At the same time, growth in the population of traditional workforce age is expected to slow to almost zero. This is a permanent change. Barring an unprecedented change in fertility rates, the age structure of the population is likely to stabilise with a far higher proportion of older Australians.

While these overall demographic considerations will drive national outcomes, there will be differences between regions. For example, some areas attract retirees and will experience a more rapid ageing of their populations. In others there is migration of many young adults from rural and regional areas to metropolitan areas for bother employment and educational opportunities. The combination of these migration trends will heavily influence the demographic changes and growth of inner urban areas across Australia, including SPAC.

7.1.3 Household Expenditure and Credit Card Debt

Household expenditure profiles have transformed since the GFC, due to a combination of slowing wage growth, rising costs of living, changing consumer preference and reduced credit card debt levels.

Wage growth has declined rapidly in recent years, as latent capacity in the labour market (both unemployment and underemployment), the rise of the “gig economy” and the broader casualisation of the economy have placed downward pressure on wage growth. Wage growth in Australia has averaged 3% plus for the past 20 years. However, over the past 5 years, growth rates have fallen a full 1% to, on occasion, less than 2% per annum. Given the rising costs of living, this wage growth means that workers are receiving minimal real increases in their income at present. The RBA considers it likely that this environment will continue for the foreseeable future.

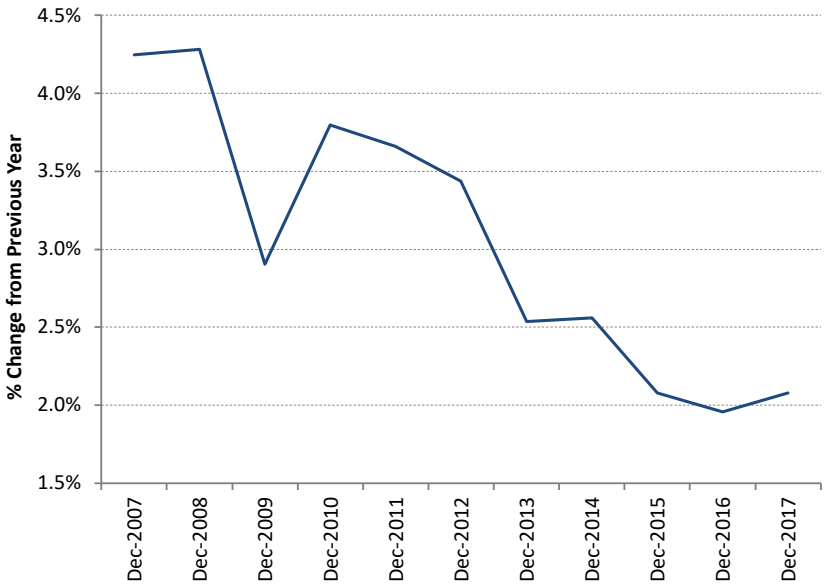

Figure 22 Wages Growth Rates, Australia, 2007-2017[xliv]

Costs of living have also been increasing significantly in recent years. While headline inflation rates have remained subdued, the cost of living for many households, particularly families with children and older households have been rising sharply. This reflects the fact that the largest growth in costs have been in sectors such as housing, health, education and core essentials such as groceries, electricity and other utilities – items that are most relevant for family households[xlv]. This rising cost of living has resulted in a lower proportion of household income being available as disposable income for discretionary expenditure in the shop retail sector.

This shift in the disposable income of households, coupled with generational change, has seen the spending patterns of households shift in recent years. Over the past decade, rises in café and restaurant and groceries shares of retail trade have offset falls in the shares of clothing, department store and household goods retailing. This shift to food expenditure in part reflects a shift in consumer spending patterns away from goods retailing to experiential and service retailing, reflecting the different preferences of emerging generations and households.

Table 18 Share of Retail Expenditure, by Sector, Australia, 2007 to 2017[xlvi]

Year	Food	Household goods	Clothing, footwear and personal accessory	Department stores	Other	Cafes, restaurants and takeaway food services
Jun-2007	38.5%	19.2%	8.4%	8.3%	13.1%	12.4%
Jun-2012	40.2%	16.6%	7.8%	7.5%	14.5%	13.4%
Jun-2017	40.1%	17.7%	7.8%	6.0%	14.3%	14.2%

A driver of this shift in expenditure patterns has been a change in consumer debt levels in Australia. Despite Australians owing over $51b on credit cards in 2017, the average amount of debt per credit cards has fallen dramatically in recent years and is now as low as October 2005 levels. Consumers and households have been decreasing credit card levels in response to both decreased disposable incomes, higher risk post GFC and a desire among households to gain greater control over their finances.

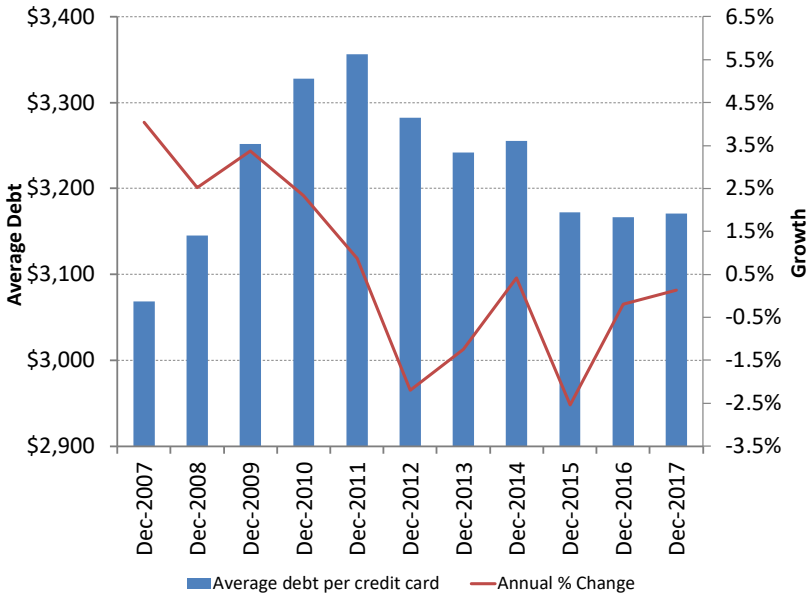

Figure 23 Credit Card Debt, Australia, 2017[xlvii]

7.2 Role of South Perth in the Metropolitan Retail Network

South Perth is identified as a District Centre under State Planning Policy 4.2, which defines the role and function of District Centres as:

- Greater focus on servicing the daily and weekly needs of residents
- Catchment of 20,000 to 50,000 people
- Includes discount department stores, supermarkets, convenience retail, small scale specialty and personal services;
- Up to 20,000sqm Net Lettable Area of GFA permittable before a structure plan is required.
- Collocated with district level office and local professional services[xlviii].

South Perth is not a "normal" district centre. South Perth is a boutique, niche retail destination with a focus on local convenience retail, experiential café and restaurant and tourist and visitor servicing. The addition of non-residential expenditure within the catchment means that South Perth could have the capacity to support a higher proportion of retail floor space than a traditional district centre.

Currently, SPAC accommodates over 8,000sqm of Shop Retail floor space, which is less than half that permitted under SPP 4.2. South Perth therefore has significant capacity for growth if it is to fulfil its role and function in the wider catchment.

7.3 Value of Retail Sources and Assumptions

RPS has assessed all three main sources of retail expenditure for the SPAC. This is comprised of:

- Expenditure from the population living within the ACP (i.e. local convenience retail);
- Expenditure from day trip, domestic and international overnight visitors; and
- Expenditure from workers.

Each of these sources of retail expenditure require a different assessment approach and unique expenditure values and assumptions.

7.3.1 Residential Expenditure Assumptions

In terms of residential retail expenditure, RPS has applied a standard per person retail expenditure rate ($13,000 per person per year[xlix]) to ***the medium scenario population*** projections for the SPAC. This results in the total expenditure pool for the SPAC being estimated.

Dividing this local expenditure pool by an average Retail Turnover Density (retail expenditure per sqm of Gross Lettable Area – Retail) of $6,250[l], RPS is able to estimate the total retail floor space required in the area to support the local residential population.

This approach and key assumptions made align with the requirements of SPP 4.2 for calculating residential retail expenditure.

7.3.2 Worker Expenditure Assumptions

This residential population calculation is then complemented with estimates of non-residential expenditure from workers. To calculate the worker contribution, RPS applied an average $15 per day (based on 280 work days per year) for all workers under the ***Low employment scenario*** outlined in this Assessment.

All this expenditure is captured locally and is converted into floor space using the same Retail Turnover Density and residential retail consumers.

7.3.3 Tourist Expenditure Assumptions

Finally, RPS estimated retail expenditure from visitors by allocated standard per visitor expenditure rates to the projections of each of the tourist types outlined in section 6.1.

The first step is to isolate the proportion of expenditure that is associated with retail land uses. The most recent national data from Tourism Research Australia and validated by the National Retailers Association is that 39.1% of tourist expenditure is on shop retail uses.

Additionally, RPS applied the following assumptions:

- Daytrip expenditure - $110 per visitor 100% local capture;
- Domestic Overnight - $150 per visitor, 50% local capture; and
- International Overnight - $2,400 per visitor, 27.5% local capture.

Again, the results of this expenditure are converted into retail floor space to estimate the total retail floorspace need in the SPAC.

7.4 Retail Need Results

In total, RPS estimates that the total retail expenditure pool in the SPAC from all three sources was valued at $51.7m in 2017 with residents comprising the largest share at $34.8m. This is expected to grow, reaching $95.4m in 2031 and $127.2m in 2041. All values are in $2016.

To meet this expenditure, RPS estimates that there is currently a need for approximately 8,271 sqm in 2017. This is comprised of the following sources of demand.

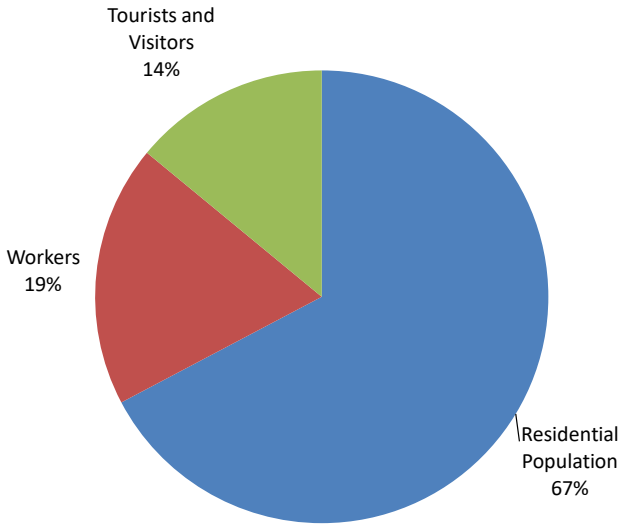

Figure 24 Share of Retail Floor Space Demand, by Source of Expenditure, SPAC, 2017

By 2031, these sources of demand could support approximately 13,860sqm of shop retail floorspace in the Area, growing to 20,356sqm by 2041.

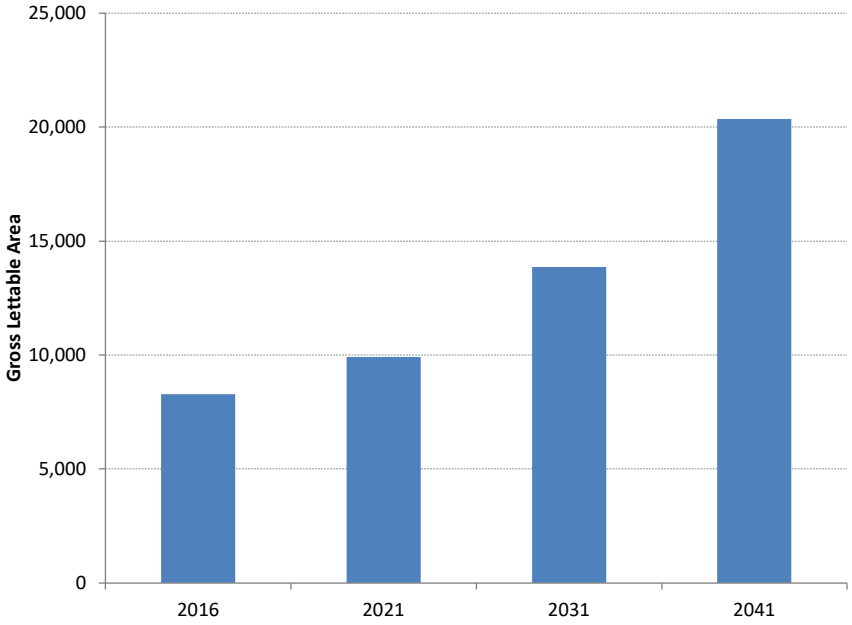

Figure 25 Retail Floor Space Demand, SPAC, 2016 to 2041

This analysis reveals a significant difference between the amount of retail floor space required under each of the employment scenarios and the level needed to meet residential and non-residential demand. Part of the reason for this difference is that retail expenditure, particularly in the non-residential tourist space is expected to grow at a significantly faster rate than regional residential expenditure.

It also highlights the fact that the retail potential of the SPAC is significantly greater than the broader economic drivers would suggest.

RPS recommends that allowance be made for a greater proportion of shop retail floor space (up to 20,000sqm in the short-to-medium term) to be accommodated in the planning controls of the SPAC, to help meet the retail needs of residents, workers and tourists.

It should be noted that this represents the retail floor space potential of the SPAC. While the analysis suggests significant local retail floor space will be needed in the future to meet resident and tourist needs, ***not all of this demand must be met within the Area***.

Other centres and retail nodes in South Perth (outside of the SPAC) could also play a role. Similarly, it is also possible for the local share of the total expenditure pool to decline over time, resulting in greater levels of expenditure leaving the SPAC.

7.5 Implications for SPAC Area

Continued growth and development of tourist visitation to the SPAC in the future has the potential to underpin local employment and economic activity. It also presents an opportunity to provide residents with greater access to retail and services, subsidised by tourist expenditure, than they could otherwise support themselves. This enhanced service and retail offering, coupled with improved pedestrian permeability of the SPAC and ground floor activation, can help ensure the sustainability of increased residential and non-residential density in the SPAC.

To support growing residential, worker and tourist expenditure directed at the SPAC, allowance should be made in the planning controls of the ACP for up to 20,000sqm of shop retail floor space within the SPAC by 2041. The amount of floorspace required ultimately depends on long-term expenditure patterns and behaviours among population and workers in the area.

8.0 Economic Development and Implementation Advice

The Activity Centre Plan for the SPAC represents an opportunity to establish the framework for the precinct to sustainably grow its role and function within the wider Perth Metro area and establish and maintain the Area as a high amenity destination of choice for residents, workers, businesses and visitors alike.

This section provides advice and recommendations on key economic development and implementation opportunities and drivers for incorporation into the Plan. It includes defining the economic vision for the SPAC, based on this assessment, key strategic themes for consideration, recommendations on the role and function of character areas within the Area and advice on the potential impact of the proposed rail station on local and regional economic development.

8.1 Summary of Key Findings

The SPAC Area has significant economic and residential potential. It is supported by a diverse range of strategic advantages including:

- High amenity location proximate to Perth Water and the South Perth foreshore.
- High levels of accessibility include direct highway access and bus and ferry-based public transport.
- Major tourist asset in the Perth Zoo.
- An affluent mature population base with a diverse mix of ages and household types.
- An established boutique retail, café and restaurant precinct, collocated with the major ferry terminal.
- Strong local cultural heritage.

Recently, South Perth has experienced a marginal decline across a number of indicators including:

- Falling population;
- Limited new residential development (pre-2016);
- Declining local employment opportunities;
- The housing stock has a disproportionately high share of low density dwellings despite the strategic river front location of the Area; and
- Public transport usage is below levels that would be expected for a strategic riverfront location like South Perth, likely due to a lack of passenger rail options.

The results of this Assessment indicate that the SPAC Area is not currently functioning at its full potential and opportunity exists to sustainably increase and enhance its residential, social and economic character. This will not only improve the long-term commercial and social sustainability of the Area, by strategically and proactively managing impending growth pressures, but will ensure the Area contributes to meeting the needs of a growing population in Greater Perth.

RPS recommends that initial focus should be afforded in the short-to-medium term on increasing residential densities across the Area to help the area reach a critical mass to support services and encourage development that activates the ground floor. This should be coupled with increased development in Entertainment and Shop Retail land uses, in response to growing tourism activity forecast for the area and the wider South Perth suburb, which will also help to improve the quality and depth of service offering for local residents.

Commercial office represents a long-term opportunity for the SPAC. The high amenity, high accessibility nature of the location helps to underpin the attractiveness of the Area for boutique knowledge intensive

businesses seeking a unique location. SPAC Area is also attractive for workers and increased commercial office employment in the SPAC presents an opportunity for the northward flow of workers to the CBD to be "captured" before Narrows Bridge and providing a southern alternative to the CBD.

This growth in commercial office investment must recognise that South Perth is unlikely to compete as a general secondary office market with other locations such as West and East Perth and emerging opportunities at Northbridge with the sinking of the rail line. Any commercial office development must therefore be more targeted in its tenant base, leveraging the natural and lifestyle amenities of the SPAC to attract and retain boutique and bespoke office-based businesses, particularly in sectors such as community health services, architecture and design, legal, research and development, secondary finance, financial and investment advisory, professional consulting and associated services and creative arts.

However, the growth of commercial office in the SPAC is likely contingent on the delivery of the rail station. The creation of a transit-oriented development in the ACP presents an opportunity for travel behaviours of workers travelling north past the SPAC to the CBD and inner city to be changed, shifting more people from the Freeway to passenger rail and encouraging passengers to disembark at South Perth rather than the CBD.

It will also increase the accessibility options of local residents and businesses to the CBD and other inner city economic nodes, reducing transaction and travel costs. Finally, rail provides further accessibility options to the SPAC for tourists and visitors, helping to underpin the long-term expansion of tourist activity to the SPAC and leveraging existing natural and manmade tourist assets in South Perth.

8.2 Economic Vision, Role and Function

The ACP is to include the development of a strategic vision for the SPAC. RPS recommends that the following economic factors be considered in the preparation of the vision:

- High amenity aspirational river front precinct.
- A destination of choice for residents, businesses, workers and visitors.
- Premier boutique tourist destination and an integral part of any visitor's itinerary to Perth.
- A café and restaurant "hot spot" in Perth with a dynamic local culture.
- A hub of high quality regionally significant services in health, education, and retail, supporting residents and visitors alike.
- A boutique and bespoke knowledge intensive commercial business cluster leveraging natural amenities, high quality services and strong accessibility, including passenger rail.
- A leading hub of entrepreneurship and innovation, fostering micro and small businesses.

SPAC can fulfil several roles and functions in the City of South Perth and the regional economy and community. These include:

- Major cluster of higher density residential dwelling, reflecting the underlying development potential and value of the land.
- The Southern "gateway" to the Perth CBD.
- A major point of "intervention" in the northward flows of workers to the CBD, providing a southern inner-city employment alternative.
- A major regionally significant and diverse tourist destination for domestic and international visitors.

8.3 Strategic Themes

These strategic themes are based on consideration of economic characteristics and attributes within the context of current and emerging issues and trends. Many of these priority areas are shared with other parts of Perth and Australia, though all are particularly relevant to the SPAC's current and future social and economic development.

Strategic themes have been allocated to one of three pillars. Pillars represent broad areas of focus for city-building.

Table 19 Proposed Strategic Themes

Pillar	Strategic Theme	Description
Activity	A Smart Precinct	Establish a recognised identity as a "Smart Precinct" that is attractive for knowledge-based and research-intensive businesses and that leverages latest technologies in public realm (such as public Wi-Fi and smart grids) to enhance resident, worker and visitor experiences.
	A Vibrant Precinct	Improve activation and attractiveness of the Precinct as a place to live, work and visit including events, public art and an outdoor dining and lifestyle culture.
Movement	An Integrated Precinct	All forms and modes of transport are integrated within the Precinct with clear pedestrian and cycle routes between road, rail and other public transport nodes and major travel destinations.
	A '5 Minute' Precinct	All aspects of the Precinct are accessible to residents, visitors and workers alike within a 5-min travel, regardless of mode or time of day. Movement throughout and within the Precinct should be seamless at all times of year and provide pedestrian with a sense of "journey".
Character	A River Precinct	Celebrate the connection of the Precinct to Perth Water, both in terms of the public realm and integration of the built form. Continue to leverage the foreshore for public events and other activation while encouraging greater levels of ground floor activation on river front locations.
	A Beautiful Precinct	Enable high quality design outcomes in developments and public realm, including activated and permeable ground floors and attractive pedestrian amenities that encourage the movement and flow of people.

8.4 Role of Character Areas

The Plan + Design report by Roberts Day identified and defined four key sub-precincts or “character areas” within the SPAC. These are illustrated below.

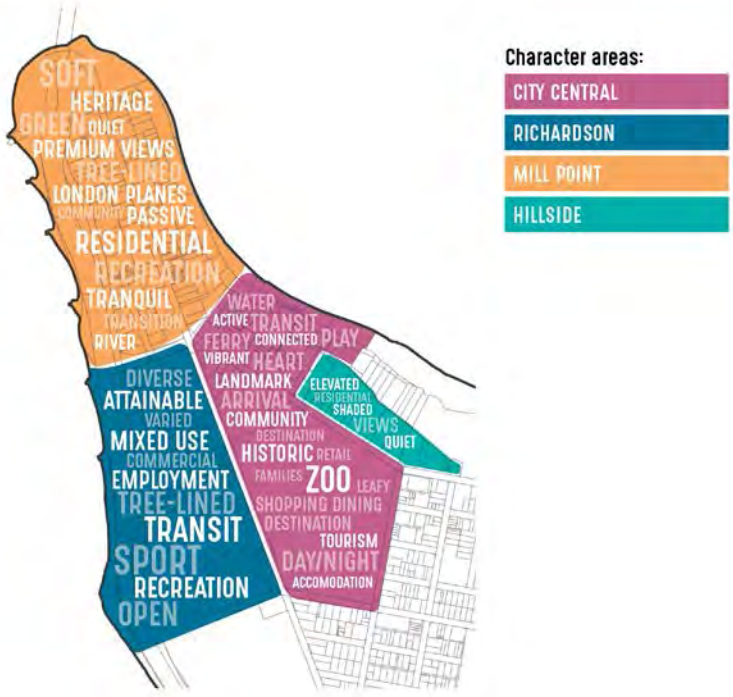

Figure 26 Character Areas, SPAC Area[li]

Figure 27 South Perth Character Area Profiles

Based on the economic vision elements outlined above and the dwelling and land use floor space scenarios in this Assessment, RPS recommends the following roles for the Character Areas:

- **City Central** – Most important precinct from an economic perspective. Principal retail, café and restaurant hub of the Precinct supported by high density residential and bespoke commercial office developments. Strong emphasis on lifestyle and café culture, fostering residential and visitor attraction and promoting local entrepreneurship and small business coworking in the Precinct. Seamless pedestrian and transport movements through the Character Area, leveraging establishment movement corridors from the Mend Street Ferry to Perth Zoo. Activation of this corridor, both community and development are critical.
- **Richardson** – high amenity and diverse residential area with a mix of small lot detached, medium density and apartment living. Integration of bespoke and boutique offices and employment accommodation with the whole Area oriented towards the River (for vistas) and Richardson Park.
- **Mill Point** – major residential intensification and growth opportunity. Current low density development represents an underutilisation of high value land and high levels of amenity make the precinct an aspirational residential destination of choice.
- **Hillside** – opportunity to leverage proximity to Central, local amenity and accessibility to the foreshore to promote intensification of residential development. Existing built form includes high rise short-stay and residential apartments and further intensification of development in this area would represent highest and best use.

8.5 Key Economic Opportunities

The subsequent assessments have identified a range of economic opportunities of relevance to the current and future development of the SPAC. These current and emerging opportunities have been summarised below. They are not an exhaustive list of opportunities, though they represent key areas of opportunity identified through analysis of the activity centre's attributes and regional drivers.

Table 20 Key Economic Development Opportunities

Key Opportunity	Description
Research and Knowledge-Based Office Sector	The SPAC, and wider region, has some of Perth's most gentrified and highest skilled workforces. This gentrification has however not been accommodated by commensurate growth in *knowledge* sectors – those directly based on the production, distribution and use of knowledge and information. The SPAC has historically accommodated a high share of office-based employment and businesses, including those in Australia's fastest growing sectors of Professional Services, Financial and Insurance and Real Estate. These sectors have however, experienced more challenging times in recent years, with CBD vacancy rates remaining high and incentives offered to potential tenants very strong. This has a flow on effect to secondary office markets such as South Perth. This is reflected in the fact that Professional Service business numbers in South Perth have declined in recent years, in response to wider economic conditions. To reduce the volatility of local demand for office floor space, consideration should be given to opportunities to attract activities with strong knowledge-based services. This should include attraction of research and development intensive activities. Opportunities include: ▪ Health and medical research commercialisation space; ▪ Community and Primary Health initiatives; ▪ Small business hub and co-working spaces; ▪ Flexible project-based spaces for major projects and multi-disciplinary teams; and

Key Opportunity	Description
	▪ Public WIFI (particularly along foreshore areas). These opportunities will help to de-risk the South Perth office market by making it a more unique office destination for businesses and investment and less dependent on wider economic trends.
Diverse Tourist Mix	Visitation has a direct influence on place activation and local expenditure which supports an array of retail, hospitality, tourism service and population service sectors. Visitation allows a region to benefit from growth outside the local area. The inclusion of the Perth Zoo in the Precinct underpins non-local visitation to South Perth. This is supported by the Swan River and foreshore areas of South Perth that attract local and regional visitors alike for health and wellness activities, lifestyle activities or for vistas of the Perth CBD. Tourism can however be a highly volatile sector and efforts should be made to reduce this volatility through a combination of diversifying visitor types and maximising local expenditure capture. Potential opportunities include: ▪ Secondary business conference spaces; ▪ Diverse mix of short-say accommodation options, including emerging product types; ▪ Clear signage through the Precinct to key tourist attractions; ▪ High amenity and permeable pedestrian movement corridors, particularly between attractions and public transport nodes; and ▪ Ongoing and regular calendar of events. Many of these attributes and opportunities already exist in South Perth. Continued improvement to formal and promote these attributes, complementing them with new developments, must be the focus.
High Density Living	Apartments in Perth were the fastest growing dwelling type over the 2001 to 2011 period, growing three times faster than detached houses, with much of this attributable to housing affordability and social preferences. Whilst broader preferences continue to favour detached housing, trends towards living affordably closer to amenity in low maintenance homes have supported increased higher density living across capital cities in Australia. Moreover, the State Government has progressively identified a need for greater levels of infill and recent planning frameworks have highlighted the importance of state and local government policy frameworks to encourage for medium and high density development. A centrepiece of Perth and Peel @ 3.5 Million is the creation of a more harmonious balance between infill and greenfield development through the identification of local government targets and an overall Perth target of 47% infill by 2050 (from 28% in 2014). The Precinct's diverse population already supports higher density living and as a result has been the focus of recent residential development and investment. Continued support of higher density living, with associated ground floor and pedestrian amenity and facilities, is therefore required to realise the residential potential of the area and meet the needs of the local and wider community. This could include the development of new housing product in the area including products targeted a young working couples, students, mature families, SOHO and entrepreneurs, retirees. Consideration should also be given to changes in the short-stay accommodation sector in recent years and the increased take up of home stays and the "sharing economy" like AirBNB.

8.6 Incentivising the "Right" Development

Realising the economic and development potential of the Precinct may require some form of incentivisation from Council and/or the State Government. Development and investment incentives have become an increasingly common aspect of Local Government development policies, with Councils playing a critical role in encouraging and facilitating economic activity.

8.6.1 The Role of Local Government in Attracting Development

The approach taken by local governments in attracting development to a region or specific area needs to be multi-faceted and undertaken in conjunction with state and possibly federal counterparts and industry themselves. The facets that need consideration in attracting development to a region have been noted above and they additionally include[lii]:

- Current economic conditions, including access to finance;
- Assist existing businesses in the development of growth opportunities, rather than attempting to immediately attract new business;
- Development plans for an area and their attractiveness to investors;
- Willingness of local governments to assist with the development process i.e. through incentives and bonuses;
- A proactive, rather than reactive approach to development that promotes development incentives in return for public and environmental benefits;
- Understanding the competitive advantages of your region, or locality;
- Access to transport and infrastructure; and
- Supply of labour.

Intangible factors include the attractiveness of a location, access to education facilities, cultural and recreational facilities, shopping and housing affordability including rental costs. In developing the SPAC and wider South Perth suburb, it is important to understand the impact of the wider economy on attracting development to the city, the built environment and the amenity of the city as part of the city's appeal.

8.6.2 Potential Incentives for South Perth

Based on the best practice examples from around Australia, RPS has collated a range of potential development incentives options for consideration for the Precinct.

Table 21 Development Incentives

Incentive Category	Incentive Type	Relevant Land Uses	Description
Built Form Allowances	Floor Space Bonuses	Residential, Commercial, Retail	Allowance for an increase in the floor space of a subject site, above that generally approved. This allowance is usually provided in circumstances where the development has provided some form of public amenity/good including: 1. Public toilets and infant change rooms; 2. Corner site streetscapes; 3. Affordable housing (owner occupier or rental); 4. For retirement village and aged care developments; 5. Site Amalgamations; 6. Public art; 7. Heritage protection; and 8. Urban Design or Architectural Merit (above that legislatively required) Similarly, floor space bonuses can be given to developments of a specific type to enhance their viability. For example, the Western Australian Planning Commission and the City of Wanneroo proved a substantial increase in the Westfield Whitford City Shopping Centre contingent on the delivery of affordable apartments on the site[liii].
Car Parking	Reduced Bay	Residential,	Reduction in locations of strategic transport and accessibility

Incentive Category	Incentive Type	Relevant Land Uses	Description
	Requirements	Commercial	value of car parking requirements. Typically includes a halving of traditional requirements and the application of further bonuses in strategic locations (i.e. CBD centres and directly adjacent major public transport infrastructure). This can save up to $50,000 per car bay, enhancing development viability. Other examples include reductions in car parking requirements for developments that provide space for car sharing facilities (i.e. bays).
Development Applications	Reduced or Waived Fees	All	Reduction or waiving of sundry fees (Operational works, Miscellaneous infrastructure, Hydraulic services or Water and meter service connections).
	Code Accessibility	All	Making select development types within identified locations code assessable (to the extent possible).
	Timeframe Certainty	All	Providing certainty to proponents of the timing of application approvals through either fixed or maximum terms. Typically facilitated by establishing a requirement for pre-lodgment, mid-lodgment and post-lodgment meetings.
	Development Advocate	All	Allocating a Council officer or team to act as a "Development Advocate" for developments on a subject site (this could be for more than one site). The Advocate is responsible within Council for streamlining the development application and approvals processes, advocating for the development internally and acting as a coordinating point of contact for the development.
Infrastructure Charges	Charges Discount	All	Discounting of infrastructure charges (typically 33-50%) for developments meeting set conditions (located in a CBD) or providing certain benefits (long-term employment or economic contributions, affordable housing or aged accommodation.[liv]
	Charges Moratorium	All	Waiving of up to 100% of applicable infrastructure charges for a set period (typically 3-5 years) for developments that commence and/or complete during this period. Used by Queensland Government in promoting short-stay/tourist accommodation in Brisbane.
Rates Holidays	Waiving of Rates	Commercial, Retail, Community	A moratorium (1-3 years) on general rates on new floor space. Covers both new developments and expansions to existing developments and applies to the new floor space[lv]. Effective in the first full year of the development upon completion and valuation. Generally, only applicable for non-residential developments.
	Rates Discount	Commercial, Residential, Community	Discount of general rates on the subject site for developments providing long-term employment and economic benefits. Discounts vary but are typically linked to the number of workers or the turnover of the business, rather than the size of the development.
Tenancy/Occupation Decisions	Council Tenancy	Commercial	Local or State Government helps to stimulate commercial office development by acting as an anchor tenant in a private owned office building for an extended lease. Examples include Joondalup City Centre and Brisbane Square[lvi].
Amenity Investments	Streetscape Improvements	All	Investment in enhancing streetscapes and pedestrian amenity in locations of potential development. Can be undertaken independently or by the developer as a charges offset[lvii].

References

[i] EIU (2015) Liveability Ranking, Economist Intelligence Unit, London
[ii] ABS (2016) Regional Population Growth, 2014-15, Cat No. 3218.0, Australian Bureau of Statistics, Canberra
[iii] Ibid.
[iv] ABS (2018) Labour Force Australia, Cat No. 6202.0, Australian Bureau of Statistics
[v] Ibid.
[vi] Landgate (2017) House Price Statistics, Western Australian Government, Perth
[vii] Demographia (2018) International Study of Housing Affordability, Demographia
[viii] Ibid.

[x] Ibid.
[xi] ABS (2013) Population Projections, Australia, 2012 (Base) to 2101, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
[xii] ABS (2013) Population Projections, Australia, 2012 (Base) to 2101, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
[xiii] ABS (2014) Australian Historical Population Statistics, 2014, Cat No. 3105.0, Australian Bureau of Statistics, Canberra & ABS (2016) Australian Demographic Statistics, Sep 2015, Cat No. 3101.0, Australian Bureau of Statistics, Canberra
[xiv] ABS (2012) Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra
[xv] Bellini et al. (2013) Cultural Diversity and Economic Performance: Evidence from European Regions (in *Geography, Institutions and Regional Economic Performance*), Advances in Spatial Science
[xvi] RAC (2013) Travel Time Surveys, 2012, RAC Western Australia, Perth
[xvii] Forecast ID (2018), Forecast ID, City of South Perth, Population Projections, access at https://forecast.id.com.au/south-perth
[xviii] Forecast ID (2018), Forecast ID, City of South Perth, Population Projections, access at https://forecast.id.com.au/south-perth. 2051 estimate derived by RPS based on ID and ABS data sets.
[xix] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xx] ABS (2016) Counts of Australian Businesses, including Entries and Exits, Jun 2012 to Jun 2016, Cat No. 8165.0, Australian Bureau of Statistics, Canberra
[xxi] ABS.Stat (2016) *Regional Statistics* <accessed October 1 2016>, Australian Bureau of Statistics, Canberra
[xxii] ABS (2016) Small Area Residential Population Estimates (unpublished), Australian Bureau of Statistics, Canberra
[xxiii] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxiv] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxv] Chan, C. (2007) Social Capital in the Chinese Community in Chatswood, Planning and Urban Development Program, The University of New South Wales, Sydney
[xxvi] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxvii] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxviii] Ibid.
[xxix] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxx] ABS (2012) Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra
* Excludes workers which did not go to work or did not state method of travel
[xxxi] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxxii] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxxiii] ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
[xxxiv] Department of Planning (2015), 2015 land use and employment survey, Perth
[xxxv] Estimates by RPS Group, derived from the 2008 land use survey (Department of Planning) and development application data
[xxxvi] Department of Planning (2015), 2015 land use and employment survey, Perth
[xxxvii] Department of Planning (2015), 2015 land use and employment survey, Perth
[xxxviii] Forecast ID (2018), Forecast ID, City of South Perth, Population Projections, access at https://forecast.id.com.au/south-perth. 2051 estimate derived by RPS based on ID and ABS data sets.
[xxxix] ID (2018) Tourism and Hospitality Data, ID Community, Melbourne
[xl] TRA (2018) National Visitor Survey and International Visitor Survey, Tourism Research Australia, Canberra. Analysis by RPS.
[xli] NAB (2017) NAB Online Retail Sales Index, December 2017, National Australia Bank, Melbourne
[xlii] ABS (2018) Retail Trade, Australia Cat. No. 8501.0, Australian Bureau of Statistics, Canberra
[xliii] ABS (2016), Population Projections, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
[xliv] ABS (2018) Wage Price Index, Australia, Cat No 6345.0, Australian Bureau of Statistics, Canberra
[xlv] ABS (2017) Household Expenditure Survey, 2015/16, Australian Bureau of Statistics, Canberra
[xlvi] ABS (2017) Retail Trade, Australia, Cat No. 8501.0, Australian Bureau of Statistics, Canberra
[xlvii] RBA (2017) Credit Card Debt Statistics, Reserve Bank of Australia, Melbourne
[xlviii] WAPC, State Planning Policy 4.2, Activity Centres for Perth and Peel, Department of Planning, Perth
[xlix] MarketDataSystems (2017) Western Australia Retail Expenditure Per Person Average, Market Info 2016, Market Data Systems, Eagle Farm, Queensland
[l] Urbis (2016) Shopping Centre Benchmarks, WA, Urbis, Sydney
[li] Roberts Day (2017) Place + Design: South Perth Station Precinct, City of South Perth, South Perth
[lii] McKinsey, (1994), Lead Local, Compete Global: unlocking the growth potential of Australia's Regions, Regional Development,

Canberra: Australian Government
[liii] BusinessNews WA (2015) 739 Apartments in Whitford City Expansion accessed at https://www.businessnews.com.au/article/739-apartments-in-Whitford-City-expansion
[liv] BCC (2016) Retirement and Aged Care accessed at https://www.brisbane.qld.gov.au/community-safety/community-support/seniors/retirement-aged-care
[lv] City of Clarence (2016) Rates Holiday, accessed at http://www.ccc.tas.gov.au/page.aspx?u=990
[lvi] WA State Government (2016) New Public Sector Offices for Joondalup accessed at https://www.mediastatements.wa.gov.au/Pages/Barnett/2016/07/New-public-sector-offices-for-Joondalup.aspx
[lvii] City of Melbourne (2016) Streetscape Improvement Program accessed at http://participate.melbourne.vic.gov.au/streetscapes

APPENDIX 2

TRANSPORT + MOVEMENT ANALYSIS

South Perth Activity Centre Plan

MOVEMENT NETWORK REPORT

PROJECT	81113-290 South Perth Activity Centre Plan			
Revision	**Description**	**Originator**	**Review**	**Date**
0	Draft for CoSP Review	CAS	MDR	14/03/18
1	Issued	CAS	MDR	06/07/18

Contents

Figures

Tables

1. INTRODUCTION

1.1 Movement Network Report

The Movement Network Report has been compiled in support of the completion of the South Perth Activity Centre Plan. The purpose of this report is to inform the development of the plan and provide information that is required within State Planning Policy 4.2 (SPP 4.2) relating the functioning of the transport network.

The title of the report reflects the stage of the process that this document informs (Milestone 3 as shown in Figure 1). This report sets out the context of the transport network and is designed to assist the project team, City of South Perth and stakeholder engagement processes. It will be finalised upon completion of the overall planning and engagement process associated with the Activity Centre.

Statutory and strategic planning or infrastructure decisions have informed many outcomes that are apparent in the Activity Centre area. From a transport perspective, much of this has centred around the potential for a new Station along the Mandurah Urban Rail Line.

There has also been substantial technical transport work undertaken within this location over the past five years. Much of the technical work has focussed on modal elements (such as a Parking Strategy) or has examined issue-specific areas of interest (such as intersection modelling). The Movement Network Report does not seek to replicate this work, nor superseded it in many instances. References to previous technical work are contained throughout this report where appropriate..

1.2 State Planning Policy 4.2 (SPP 4.2)

The City of South Perth commenced the development of an Activity Centre plan as a result of a significant planning process culminating in the May 2017 South Perth Peninsula Place and Design Report (PDR). Development of Activity Centre plans are guided by State Planning Policy 4.2 (SPP 4.2) – Activity Centres for Perth and Peel. Within SPP 4.2, there is a requirement to address transport issues within the Activity Centre with a focus on a key objective that contributes to orderly planning across the Perth and Peel Region, being:

SPP 4.2 Objective: Maximise access to activity centres by walking, cycling and public transport while reducing private car trips.

The Movement Network Report sets out the required responses to the key areas set out in SPP 4.2. Outside of the introduction section of the Report, there are six key areas that are examined within the report:

- Regional Perspective
- Public Transport
- Pedestrian Movement and Amenity
- Cycling
- Vehicle Movement and Access
- Parking.

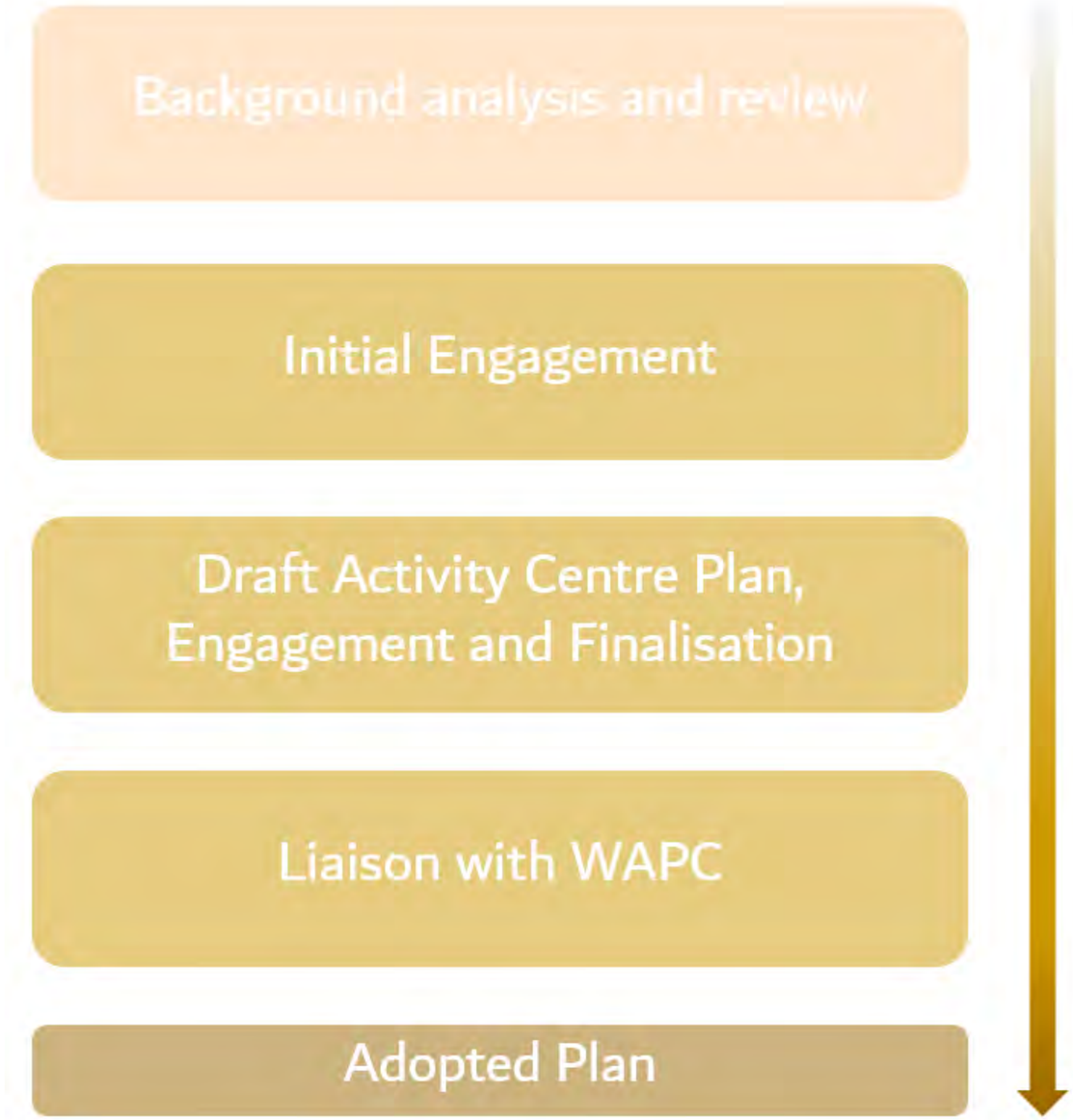

Figure 1 Process for Activity Centre Plan

2. REGIONAL PERSPECTIVE

2.1 Regional Location

The South Perth Activity Centre Plan area is located to the south of Central Perth. Geographically, it is located on a peninsula in the Swan River.

The transport network in the Activity Centre is dominated by the Kwinana Freeway reserve which extends along the western boundary of the Activity Centre. On an average weekday, the Freeway carries well over 180,000 vehicles per day and it is one of the busiest sections of the primary distributor road network throughout the Perth Metropolitan Region. The Freeway reserve also contains the Perth to Mandurah Urban Rail line.

The location of the Activity Centre in a regional perspective is shown in Figure 2. In respect of traffic travelling distances from the main intersection of Mill Point Road and Labouchere Road, the Activity Centre is approximately:

- 7km from Curtin University
- 7km from University of Western Australia
- 8km from the East Perth Train Terminal
- 19km from the North Head Ferry Terminal
- 19km from Perth International Airport.

Figure 2 Location of Activity Centre

2.2 Regional Perspective – Road Hierarchy

The road network in the South Perth Activity Centre is dominated by Access Streets and a street network that is maintained and controlled by the City of South Perth. The road network within the Activity Centre Boundary, setting out the Main Roads WA road hierarchy classifications, is shown in Figure 3. The main distributor level roads are:

- Ramps and Kwinana Freeway alignment – Primary Distributor
- Mill Point Road from King Edward Street to Labouchere Road – District Distributor B
- Labouchere Road from Angelo Street to Mill Point Road – District Distributor B
- Mill Point Road from Mill Point Close to Labouchere Road – Local Distributor
- Angelo Street from Onslow Street to Labouchere Road – Local Distributor

All other streets and lanes shown in Figure 3 are classified as Access Streets.

2.3 Regional Perspective – Road Speed Zones

The vast majority of streets and roads within the Activity Centre have a posted speed limit of 50km/h.

As shown in Figure 4, Kwinana Freeway has posted limits of between 80km/h and 100km/h with Mill Point Road, Labouchere Road and a number of on and off-ramps having a posted speed limit of 60km/h.

Where a street in the Activity Centre is not marked, the posted speed limit is 50km/h.

2.4 Regional Perspective – Points of Arrival

The Activity Centre has a range of unique arrival points per mode, as indicated in Figure 5.

- The Activity Centre is home to the Mends Street Ferry Terminal, the only public transport passenger ferry terminal on the Transperth network outside of Elizabeth Quay in Central Perth.
- The primary north-south Principal Shared Path (PSP) for cyclists and pedestrians runs alongside the Kwinana Freeway and provides an entry point via the Narrows Bridge (from the north) and via an overpass bridge on to Melville Parade (from the south).
- The Recreational Shared Path (RSP) that runs around the Swan River provides an entry point for pedestrians and cyclists from the east.
- The Kwinana Freeway off-ramp provides a southbound entry point for vehicles and bus passengers from Central Perth.

There are a range of other lower order, localised entry points for all modes, including via the Labouchere Road corridor from the south, Angelo Street corridor from the east and the Mill Point Road corridor from the east.

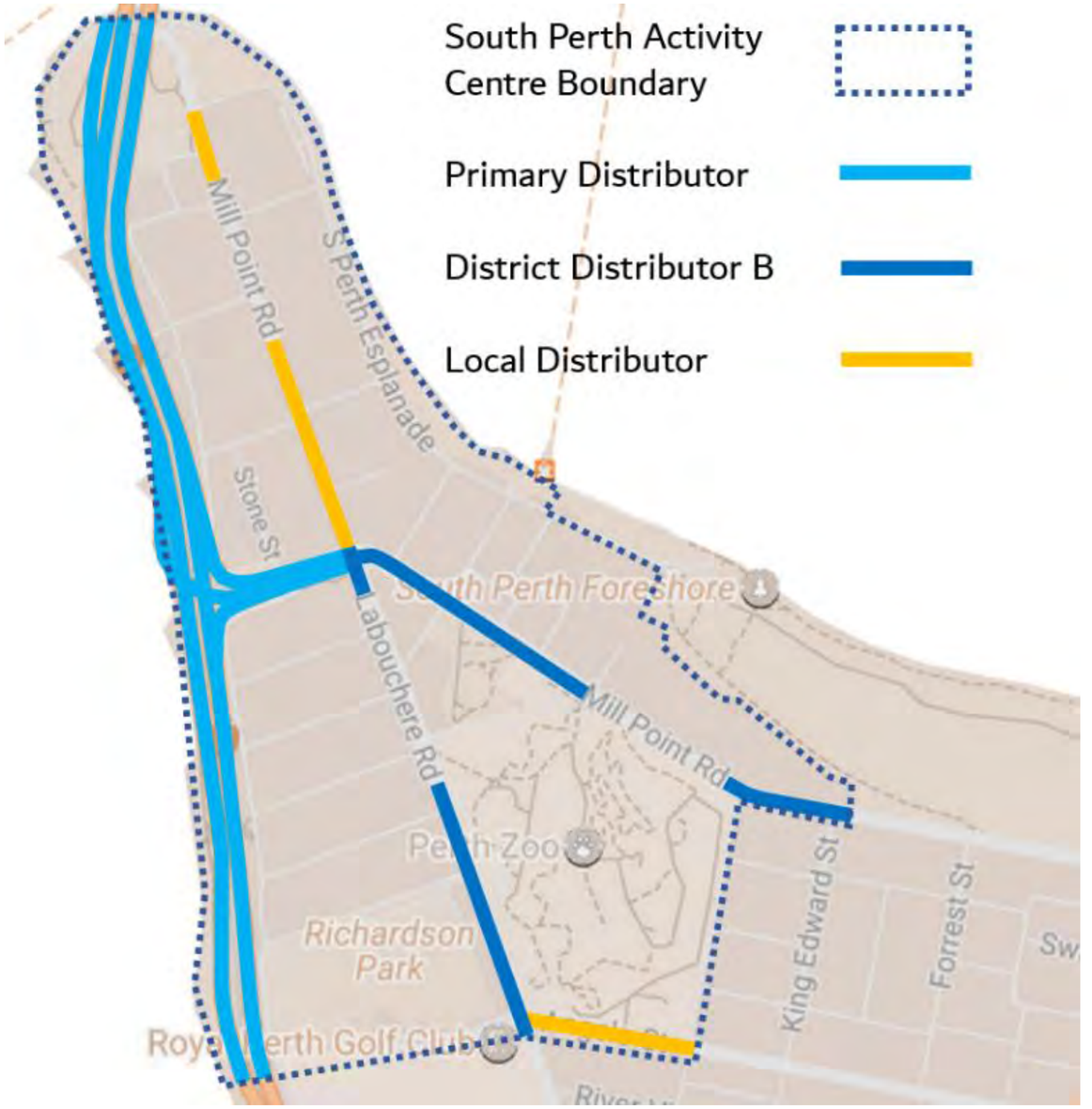

Figure 3 Road hierarchy

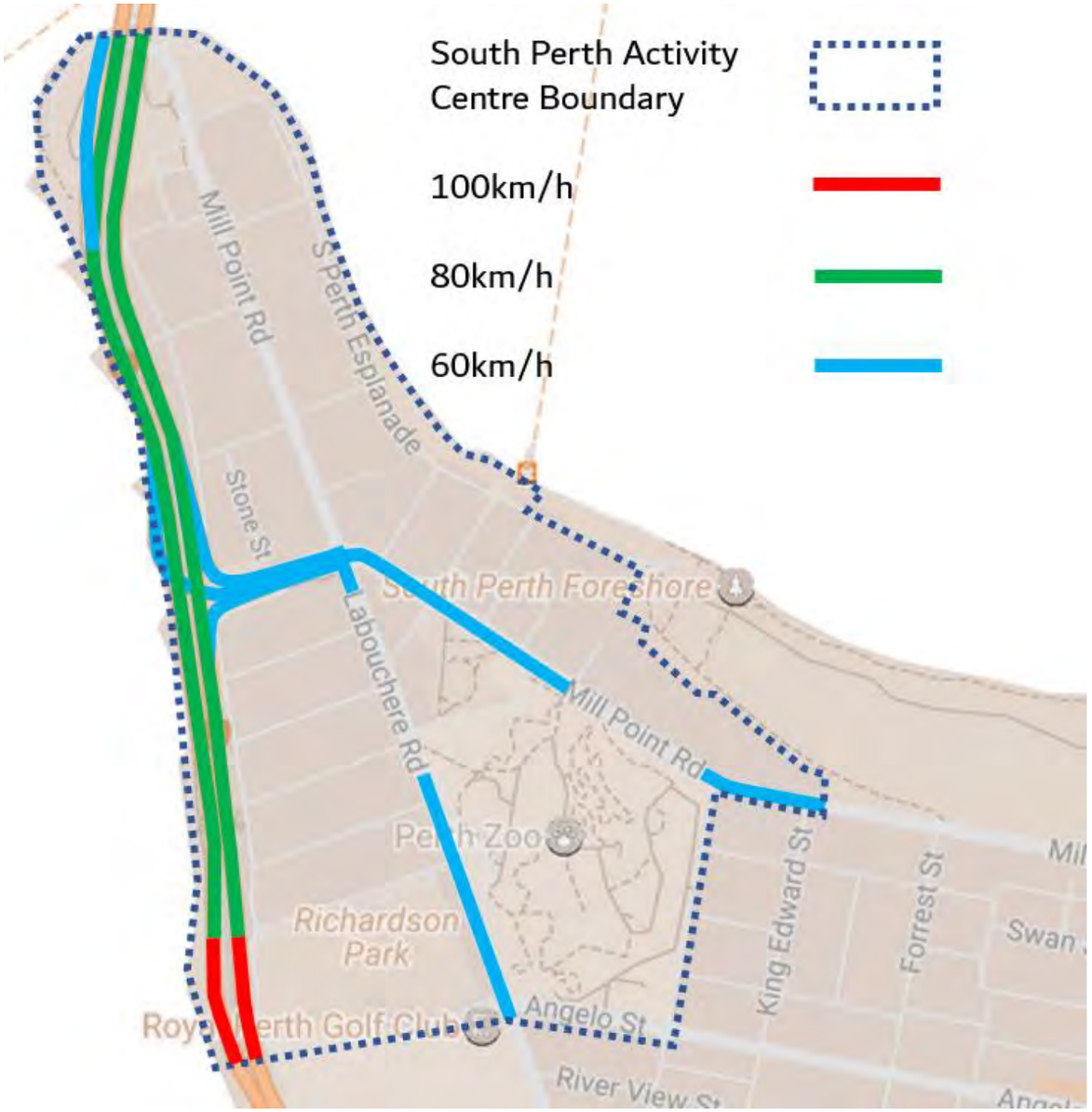

Figure 4 Speed zones

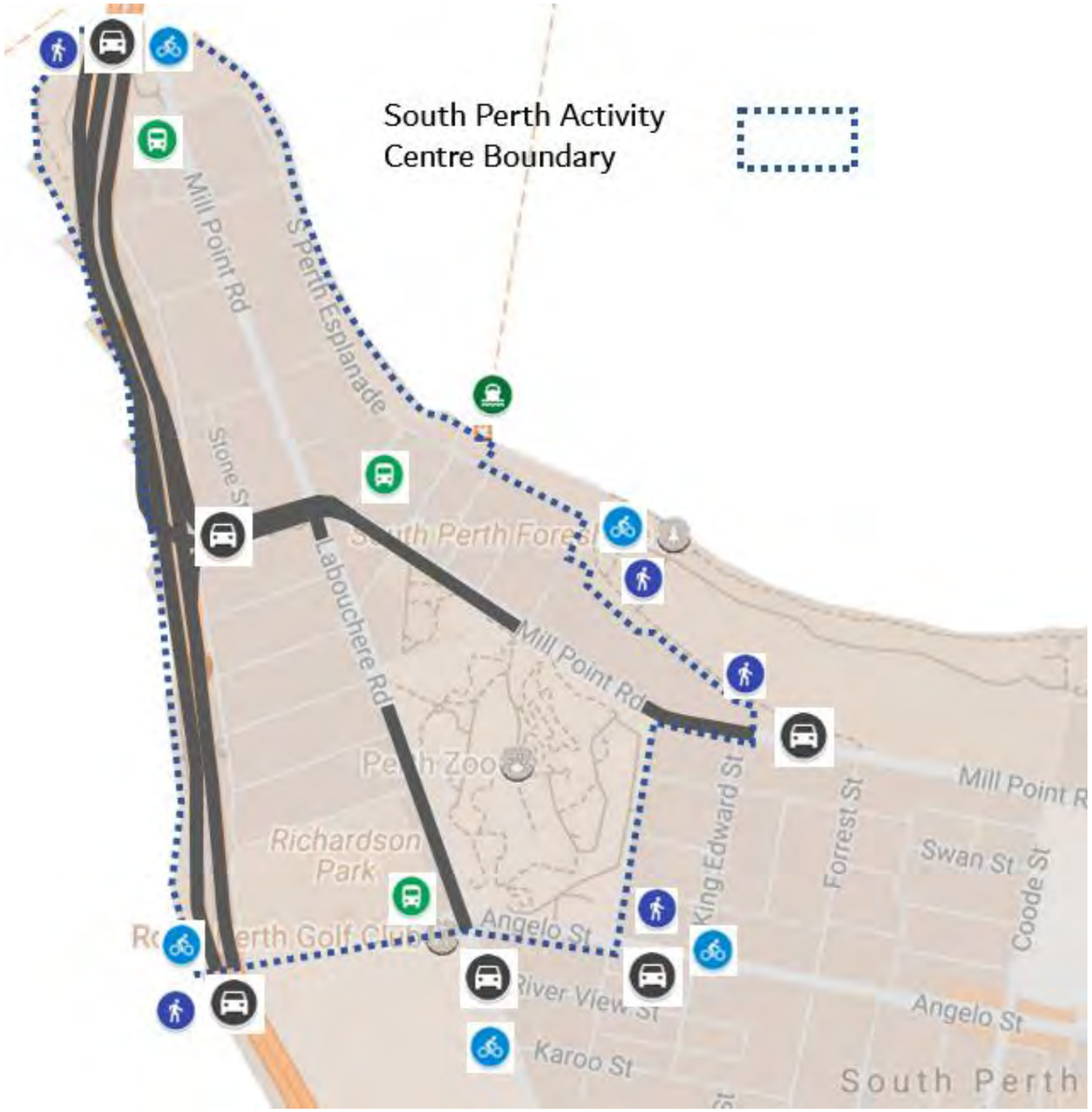

Figure 5 Points of arrival

2.5 Regional Perspective – Key Sites

There are a number of key sites within the Activity Centre boundaries, ranging from existing features through to sites that will impact substantially on the network in the future. The sites, as indicated on Figure 6, are:

- The site of a potential future South Perth Train Station on the Mandurah Urban Rail line. The site is located adjacent to Melville Parade near the intersection of Richardson Street. This section of the Urban Rail line has been designed to accommodate future rail platforms.
- Kwinana Freeway on and off ramps and intersection with Labouchere Road and Mill Point Road. This intersection and ramp structure dominate the transport network in the Activity Centre and have had substantial analysis undertaken over many years.
- Mends Street Ferry Terminal. The terminal is the major existing Public Transport entry point to the Activity Centre.
- Mends Street is the main commercial, entertainment and retail area within the Activity Centre, the form of which is being examined under a separate project.
- Perth Zoo. The Zoo is a major attractor of trips, including on weekends and during holiday periods. It attracts substantial numbers of public transport and vehicle trips.
- Civic Heart. The proposed development at the intersection of Mill Point Road and Labouchere Road will generate a range of impacts on the Activity Centre street network.

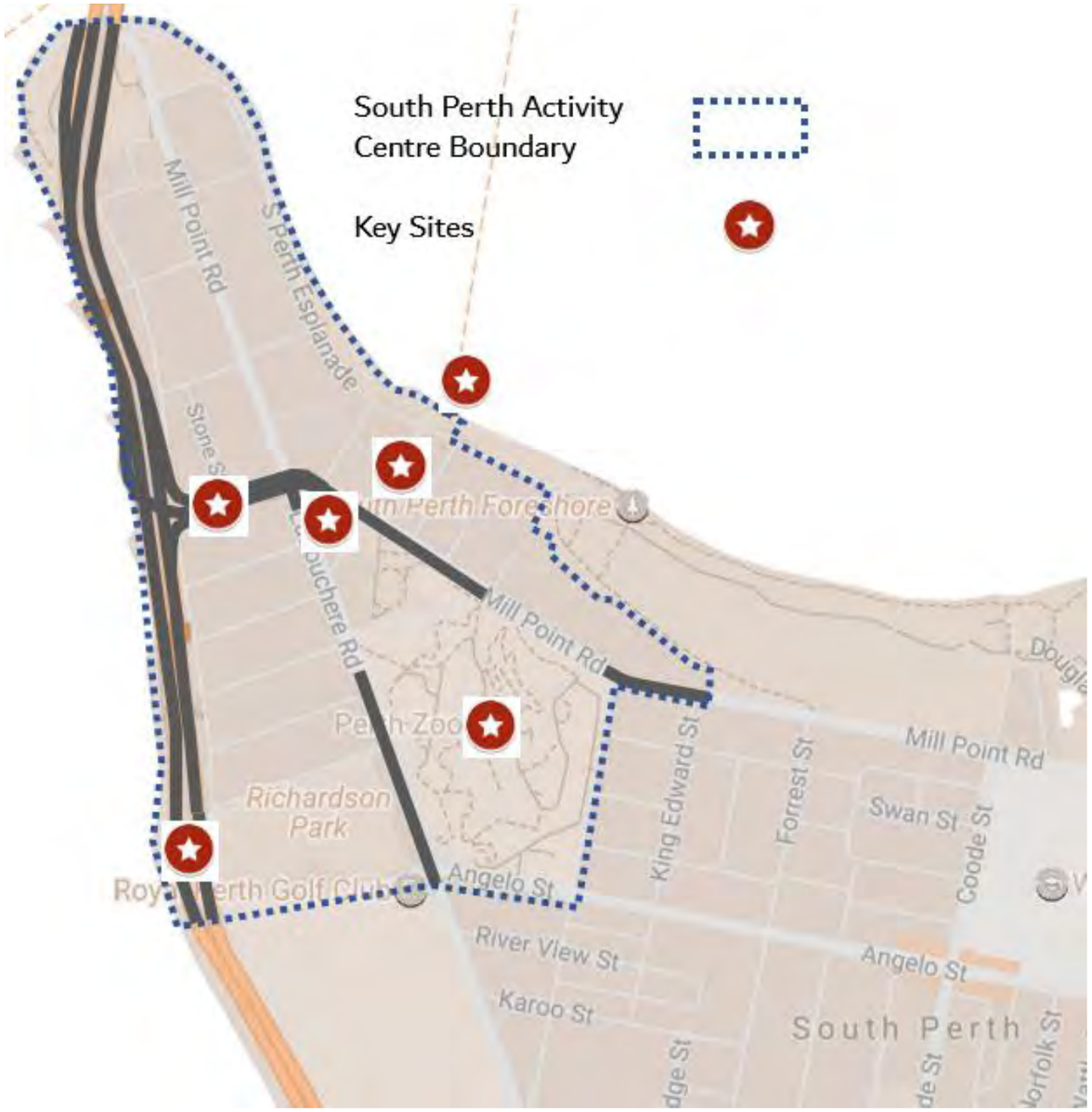

Figure 6 Key sites

2.6 Regional Perspective – Travel Context

One of the standard indicators for travel mode preferences is Journey to Work information extracted from the Census which captures the main mode of transport from a place of residence to employment. The 2016 Journey to Work information for the

locality of South Perth (removing non-working respondents) is shown in Figure 7. In general, these mode splits for work journeys are replicated in the wider City of South Perth.

In comparison to Greater Perth, South Perth had fewer car trips and higher bus trips, which is reflective of the proximity of South Perth to the main employment centres.

The release of the 2016 Census data captured high level changes in South Perth that are shown in Figure 8. The headline changes between periods are:

- A rise in the proportion of people driving to work (62% to 66%)
- A reduction in the number of people walking (4% to 1%)
- Reductions overall in public transport usage with Bus, Ferry and Train all reducing
- Higher proportion of people working from home or using other modes.

It should be noted that these figure reflect the main, single mode trips. The total responses also capture multiple mode trips. There were an additional 142 people who made trips using train or bus as one of multiple modes whilst only 56 people making trips with car and other modes. So the overall use of public transport is slightly higher than on initial interpretation.

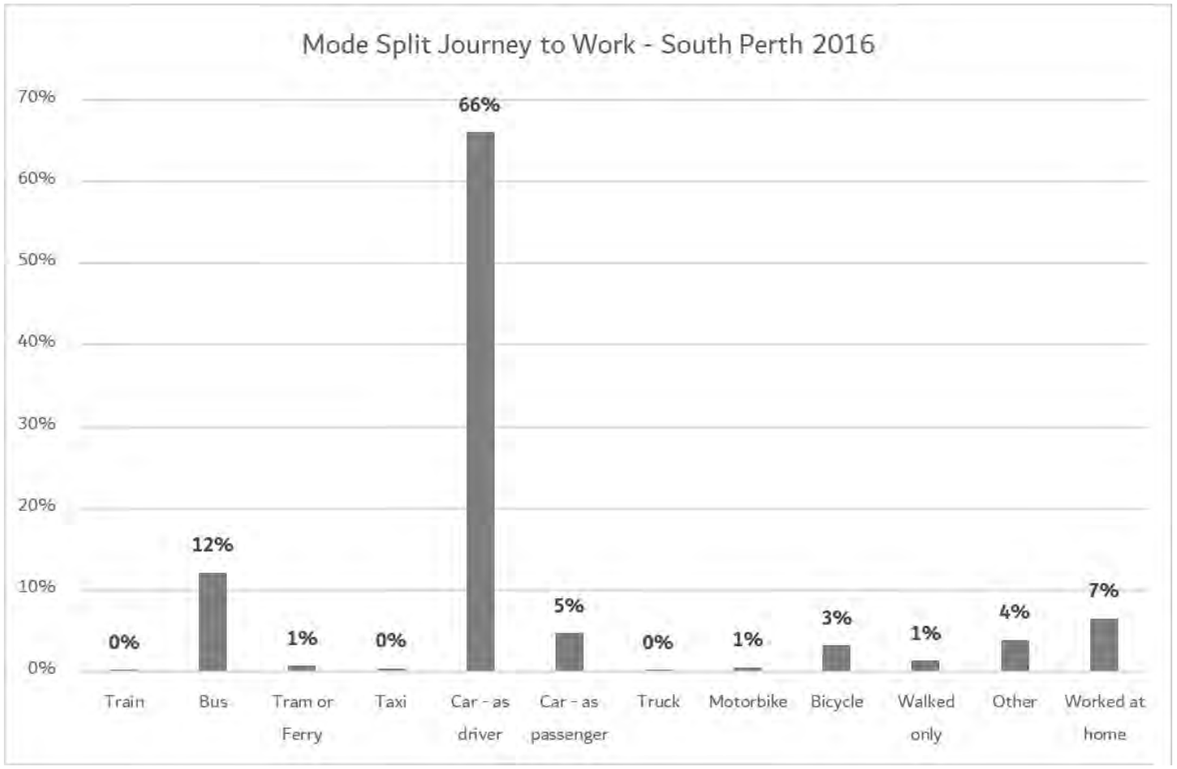

Figure 7 Mode split journey to work (2016 Census)

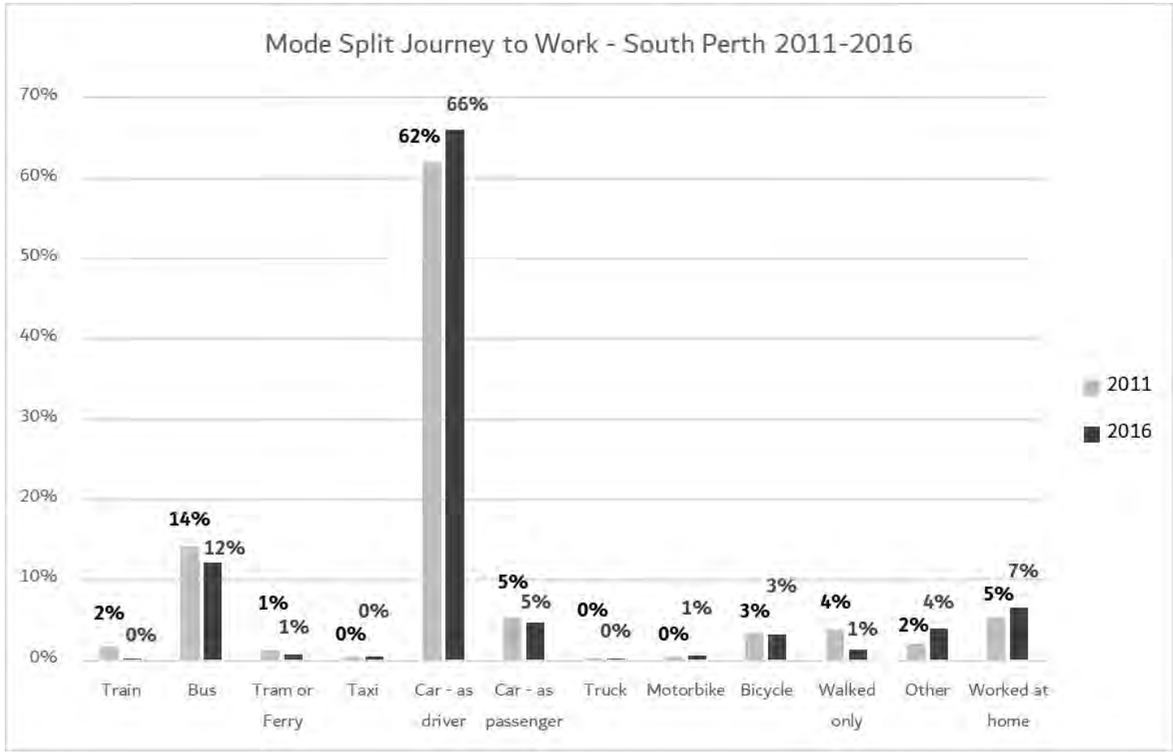

Figure 8 Journey to work trends - 2011 to 2016

2.7 Regional Perspective – Travel Context

The movement of people to and from South Perth for employment purposes was also examined to understand travel from a sub-regional perspective. For outbound trips, there was a significant degree of self-containment, as well as trips to Central and Inner Perth and Victoria Park.

For inbound workers, there was a high movement of people from Melville, Canning, Gosnells and Victoria Park.

This information, which was only available for the 2011 Census at the time of completing the assessment of the Activity Centre, is shown in Figure 9 and Figure 10.

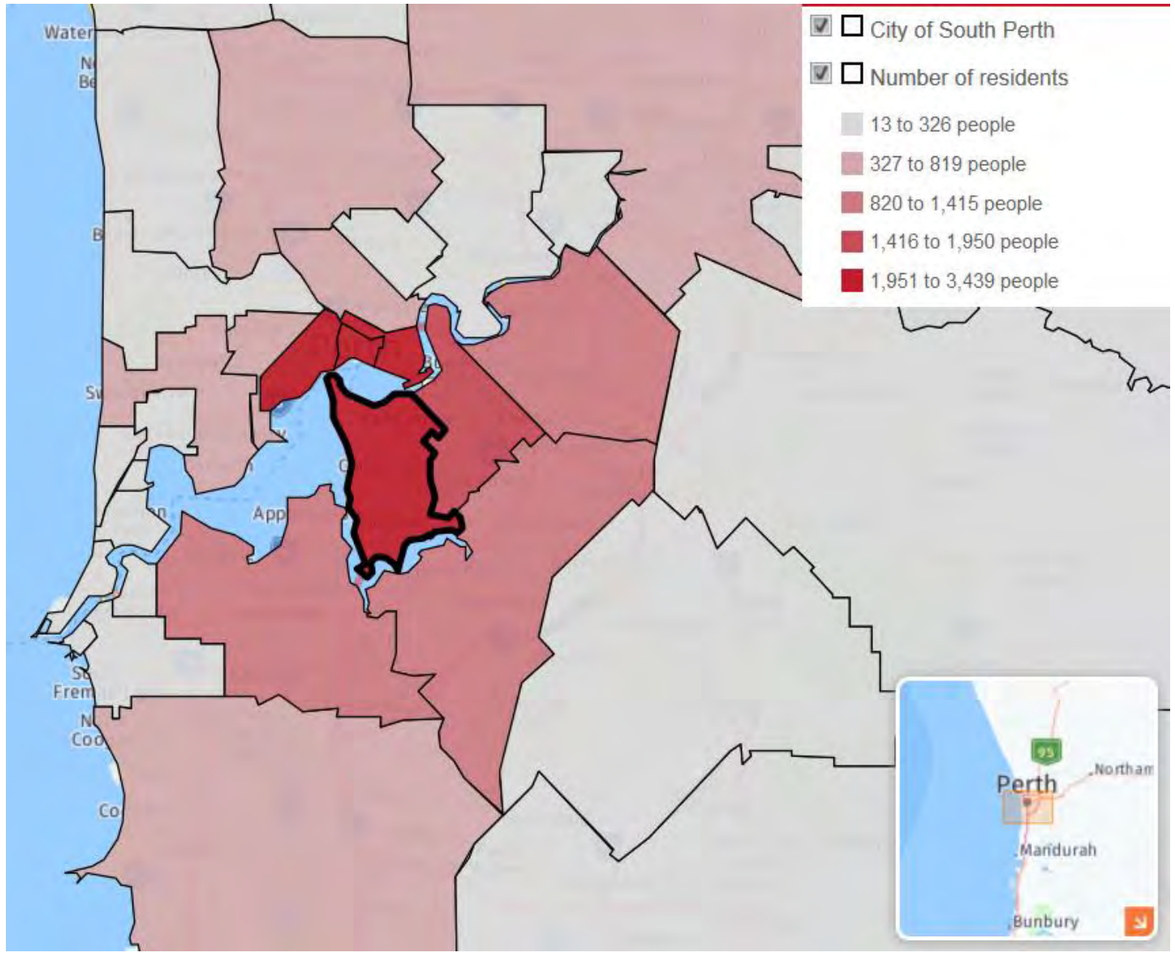

Figure 9 Residents place of work - journey to work

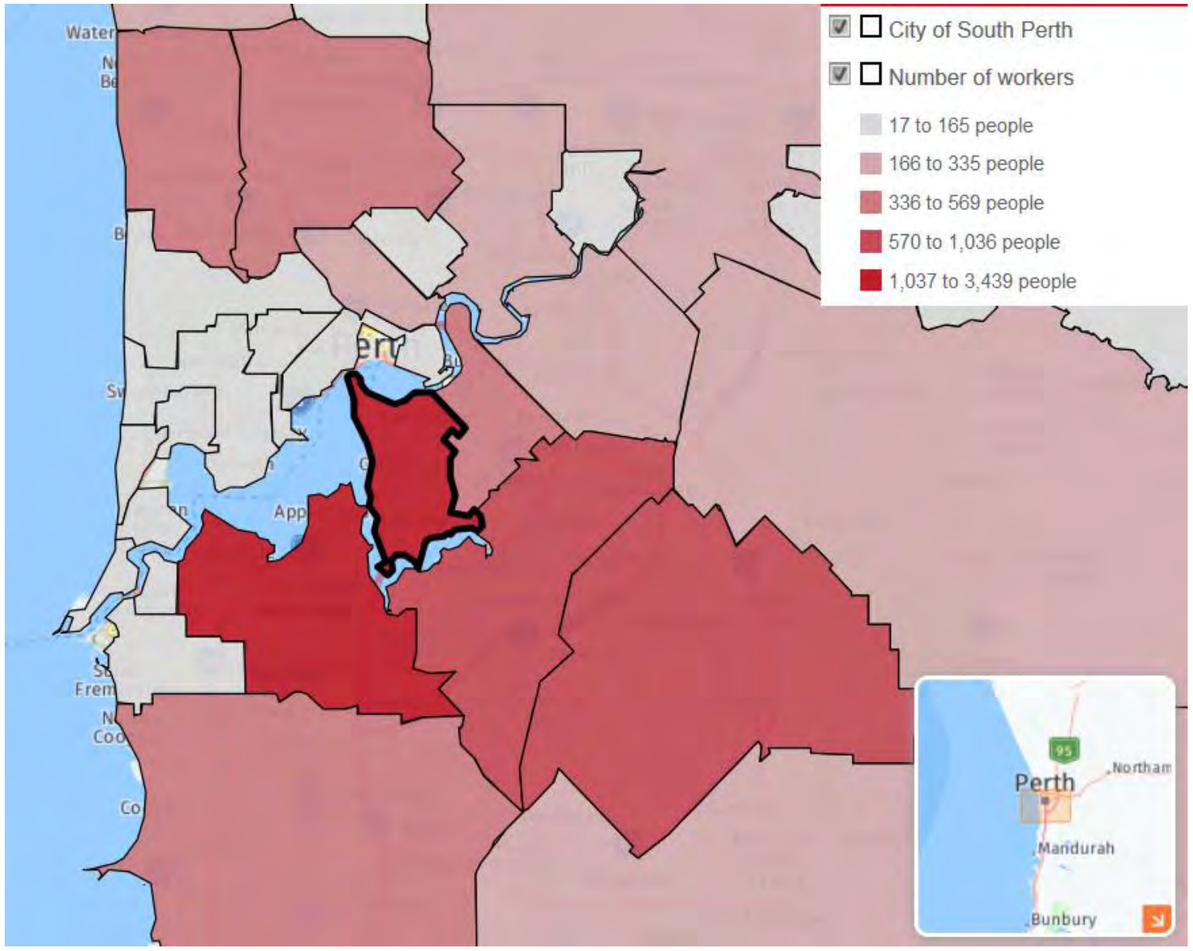

Figure 10 Workers place of residence - journey to work

The RAC undertook a survey of 800 people in 2014 to chart travel mode by trip type to inform a study about car sharing. The inner city survey area included South Perth. The results, shown in Figure 11, indicate that:

- Private vehicles are the dominant mode of transport for all trips excepting University and TAFE trips.
- The mode split for work purposes for the overall Inner City area reflects that of South Perth in the 2011 Census results.
- Public transport use for non-work or higher education trips is very low.
- Walking is a very important mode for all types of trips – a critical consideration for Activity Centres.

These movements reflect Census outputs and also provide an confirmation that private vehicles are the dominant mode of choice for travel in Inner Perth areas such as South Perth.

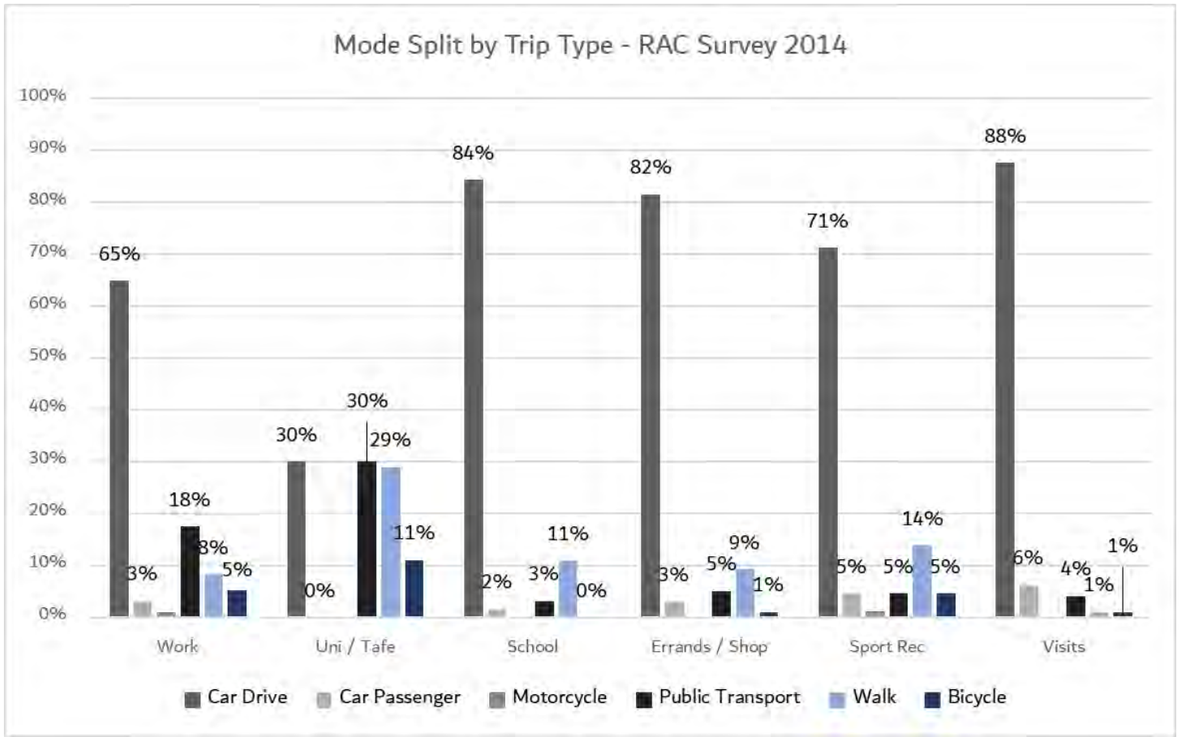

Figure 11 Mode split by trip type RAC 2014 survey

Travel times between Activity Centres and key locations around the City of South Perth were also examined to understand the context of travel choice. The exercise involved:

- Using the travel and route tool within Google Maps to gain an understanding of travel times for different modes in the AM peak period.
- Five locations were examined – South Perth, Canning Bridge, Curtin University, Causeway and Perth.
- Car, Bus, Bike and Ferry were all examined, with some multiple options reviewed.
- The time of the comparison was 8.10am on a Thursday.
- The starting point of the trips was based on a location in the South Perth Activity Centre.

Examples of the measurement tool for the individual modes are shown in Figure 12. For car trips, there was a range to reflect peak hour movements being variable and bus routes sometimes had multiple options or included a walking component.

For Perth, the end point location was 140 William Street which houses Perth Underground and the Department of Planning, Lands and Housing.

Each of the resulting times were then ranked by mode to understand an important contributor as to how people may make travel decisions between Activity Centres and key transport nodes in and around the City.

The results were overlaid on a map image to show overall results. These results are shown on Figure 13.

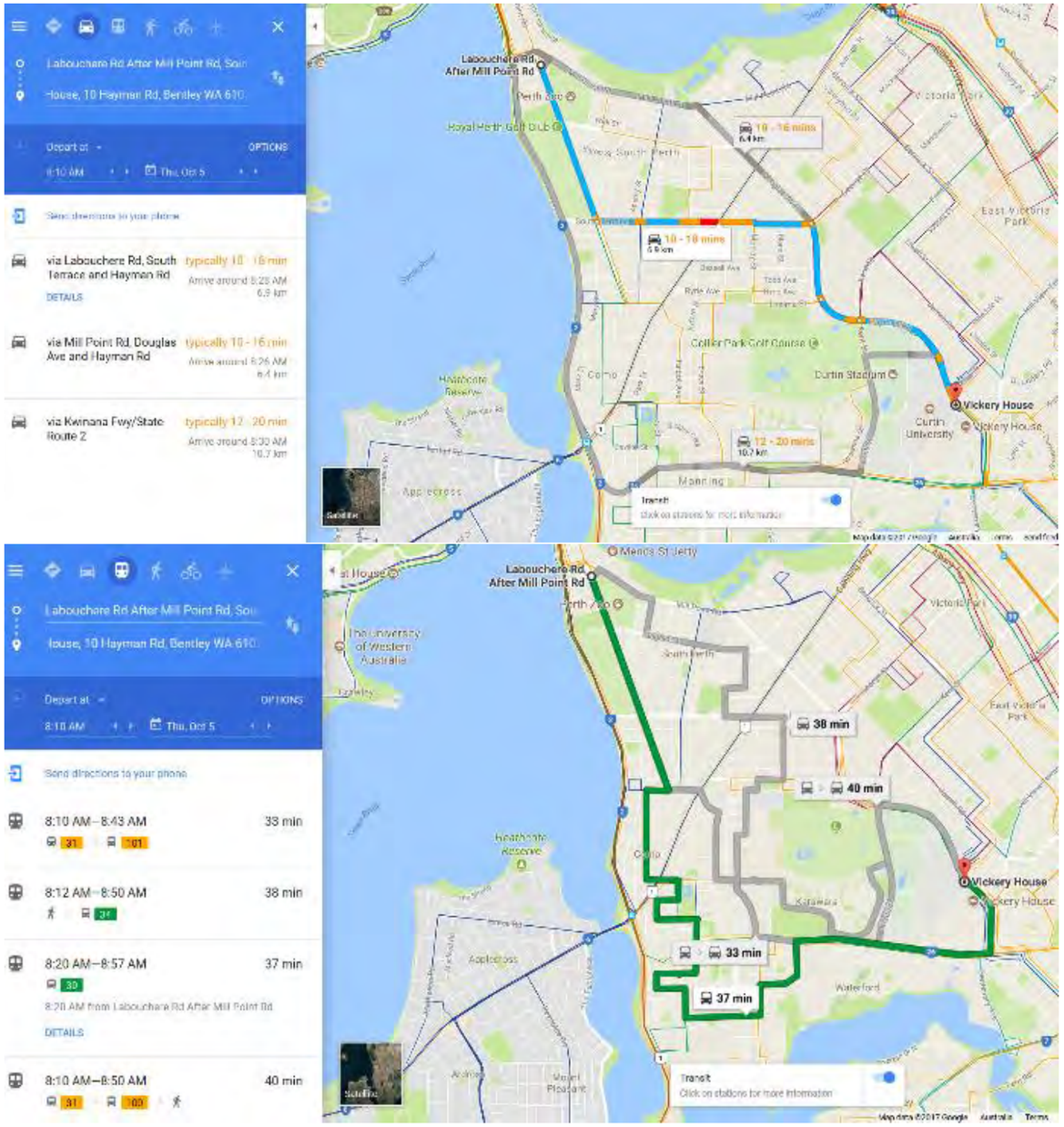

Figure 12 Example use of measurement tool in Google Maps

The travel time comparison showed some obvious patterns which have dictated overall peak hour travel patterns in the City:

- Travel times for car trips are fastest.
- Bus travel times are generally highest, reflecting impact of stops, winding suburban based routes and lack of priority.
- Bicycle trips are competitive in travel times although that is qualified by potential lack of attractive infrastructure along these routes – such as Canning Highway.
- Where there were fast, direct and frequent bus services (such as those along Canning Highway), buses were very competitive in travel times during the morning peak.
- The Ferry and Walk trip from Mends Street is highly competitive for Central Perth trips.

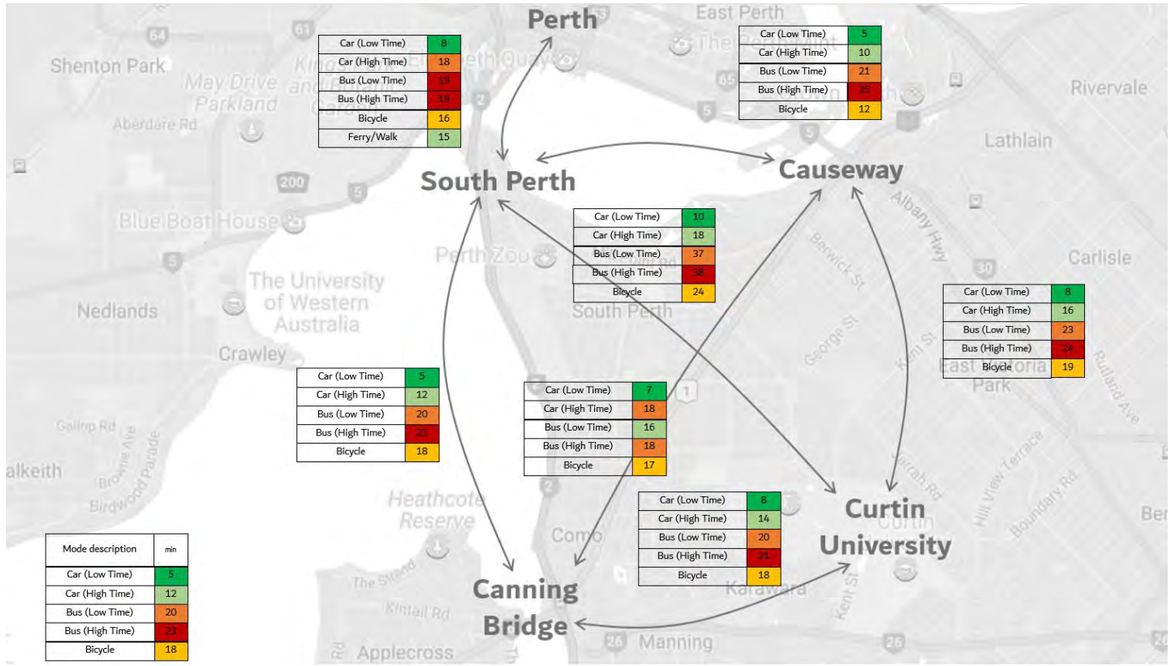

Figure 13 Ranking of travel time measurement results

Census data also provides details on car ownership by household. A review of the reported responses in the South Perth SLA between 2001 and 2016 was undertaken. The number of overall households in the South Perth SLA during this period of time grew from 5,339 to 5,629, an increase of 290 households or around 5.4% additional housing stock.

The results from the Census periods are shown in Figure 14. These outcomes, which reflect a higher proportion of households with more cars, and a lower proportion of households with no cars, demonstrates a clear disconnect between strategic land use and transport integration policies and local statutory policies during this period.

Simply put, there are substantially more vehicles (over 1,000) associated with residential dwellings in South Perth over the 15 year period. This has, in turn, contributed to existing peak hour traffic related congestion.

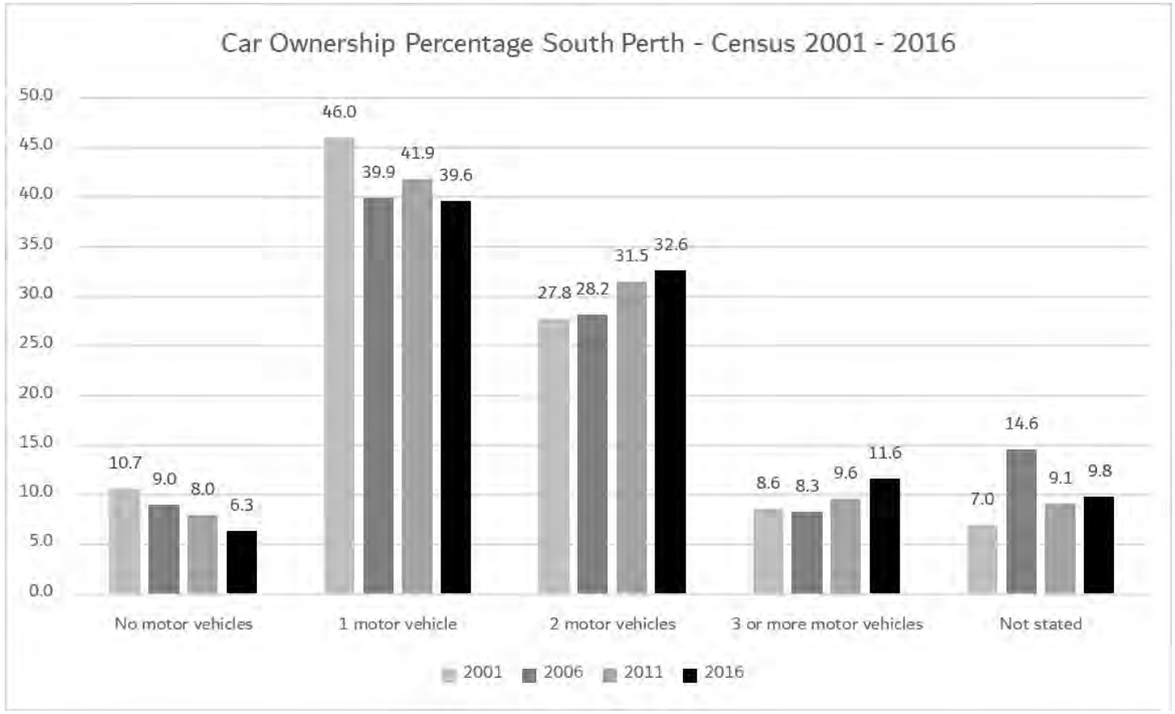

Figure 14 Car ownership percentage - South Perth between 2001 and 2016

Using available Census data and information from other Activity Centre planning exercises, a review of existing modal splits for Journey to Work activity was undertaken. This was completed to benchmark the existing travel patterns and allow for an understanding of the impacts of future travel patterns.

Information for South Perth, Subiaco and the Canning Bridge Activity Centre were reviewed, as shown in Table 1. The headline travel categories were compared to allow for general conclusions to be drawn for commuting trips.

Both Subiaco and Canning Bridge have access to the Urban Rail network which is reflected in a higher public transport mode split of 22.3% compared with Canning Bridge 15.10% and South Perth 14.2%.

South Perth has by far and away the largest proportion of car drivers and passengers (76.3%) however this is skewed by South Perth covering the lower density areas to the south of the Activity Centre. By comparison, Subiaco has 57.4% using a car as a driver or passenger and Canning Bridge has 63.7%.

Examination of the SA1 2016 Census data covering just the Activity Centre indicates that the actual split is closer to 59% using a car as a driver or passenger and 15.7% using public transport for all responses. When factored to just take into account people who worked (removing worked at home responses, not working and other), the splits are 71% using cars and 19% using public transport.

Table 1 Mode splits on journey to work

	Subiaco 2016	South Perth 2016	Canning Bridge 2016
Train	7.8%	0.3%	15.10%
Bus	14.5%	13.1%	
LRT/Ferry	0.0%	0.8%	
Car, Driver	52.1%	71.2%	63.70%
Car, Passenger	5.2%	5.1%	
Bicycle	5.2%	3.5%	3%
Walked	12.2%	1.5%	
Other	2.9%	4.2%	18.10%
Total	100%	100%	100%

3. PUBLIC TRANSPORT

3.1 Public Transport Network

The Transperth public transport network available within the South Perth Activity Centre (shown in Figure 15 including the four bus stops referred to in Figure 16) is comprised of four bus routes and a Ferry Terminal at Mends Street. The location of the Ferry Terminal within the Activity Centre makes South Perth a unique location in the overall public transport network as this is the only public transport ferry service in the Metropolitan region.

There are no bus terminals or station infrastructure in the Activity Centre although the 35 service has a terminus stop off Mill Point Road. There are no bus priority measures, either on road or through signal priority, on the local roads through the Activity Centre.

Bus stop utilisation information current for 2017 was obtained from Transperth to provide a comparison with the 2011 and 2015 information presented in the 2016 South Perth Station Precinct Transport and Access Study.

That study presented two separate data sets, one a weekday total bus boarding and alighting total from 2011, the other a stop specific analysis from 2015. A comparison of both has been completed.

The outcomes of the analysis are shown in Figure 16 and Figure 17. The analysis shows that:

- Like for like, bus patronage in the Activity Centre has dropped between 2011 and 2017.
- Like for like, average bus stop patronage in the busiest bus stops in the Activity Centre have dropped between 2015 and 2017.
- Overall use of buses in the Activity Centre remains very low.

Outcomes from the 2016 Census support the broad conclusion that public transport patronage in the Activity Centre is reducing, not increasing.

There was no detailed analysis or examination of Ferry patronage completed in previous studies relating to the Activity Centre. The details that were presented in the 2016 South Perth Station Precinct Transport and Access Study were based on STEM model outputs.

This indicated that around 900 weekday Ferry boardings and alightings were projected for 2016. The projections from STEM, including the split between Bus and Ferry patronage, is shown in Figure 18 with the "2016 without South Perth Station" providing a relevant comparison to 2017.

Ferry patronage details for March 2015 were provided by the PTA to provide a like for like monthly comparison and also show the impact associated with Elizabeth Quay opening. The overall results are shown in Figure 19 which shows that average patronage for all periods has at least doubled.

Figure 15 Transperth network map - Activity Centre area

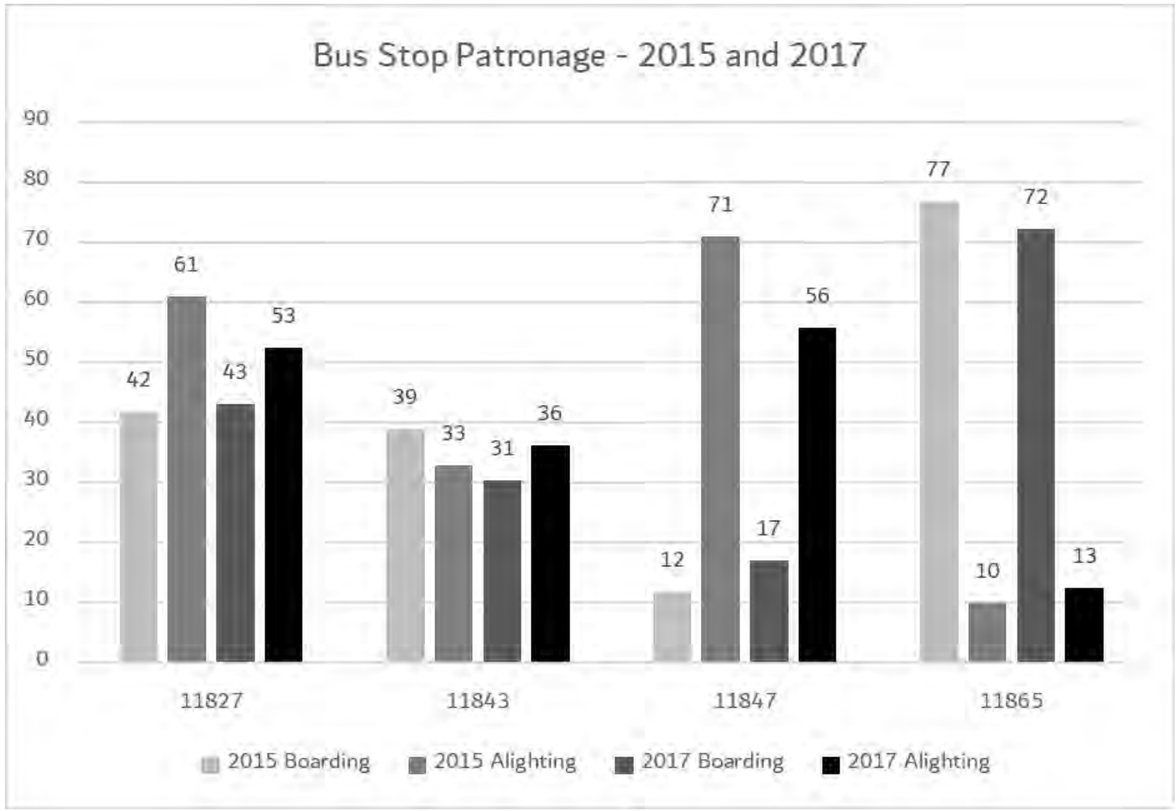

Figure 16 Bus stop patronage in Activity Centre - 2015 and 2017

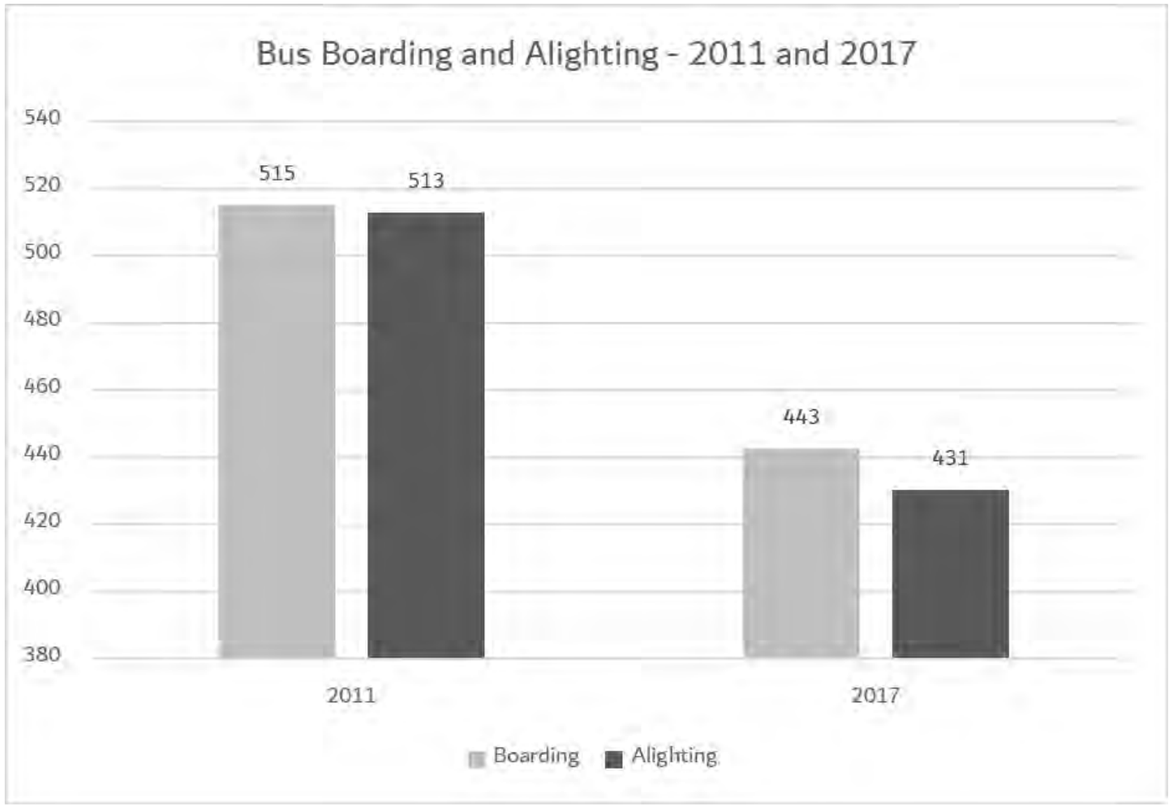

Figure 17 Bus boarding and alighting - 2011 and 2017

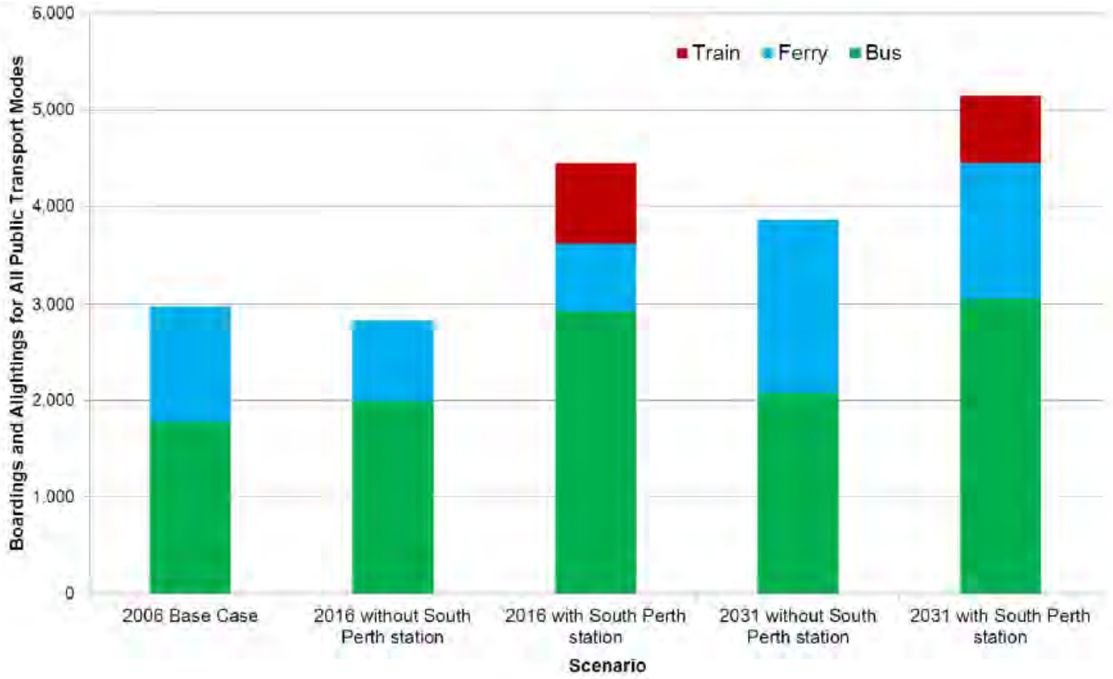

Figure 18 STEM model outputs 2031

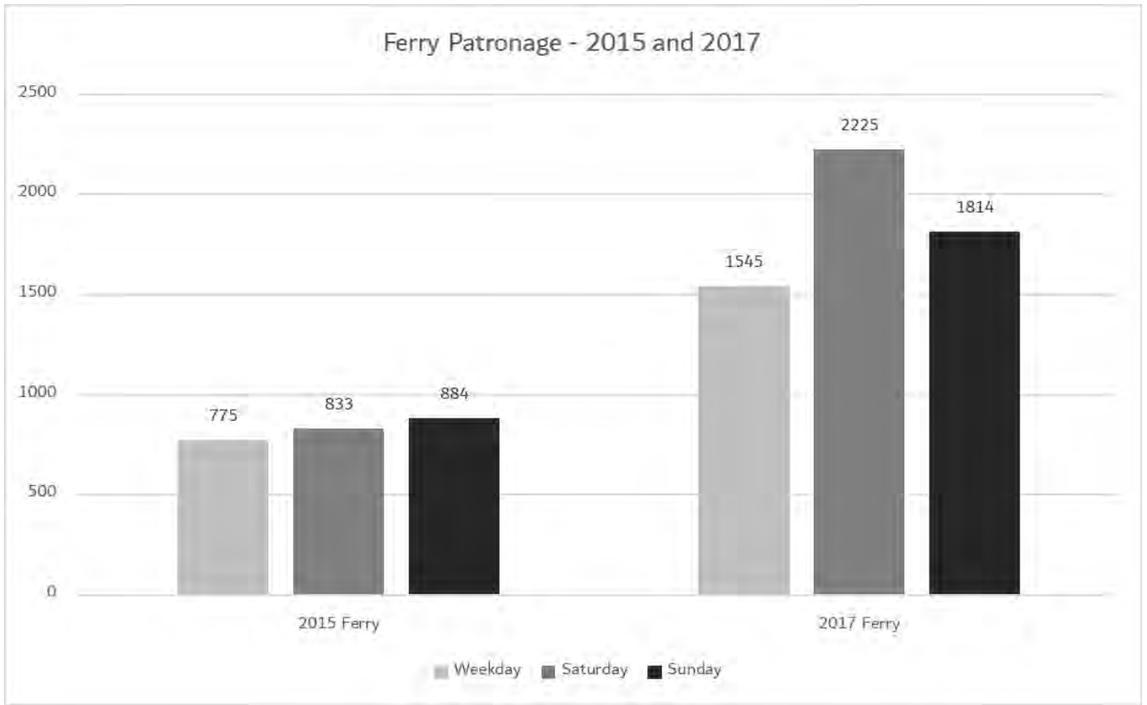

Figure 19 Ferry patronage - 2015 and 2017

Actual 2017 March weekday patronage numbers for Public Transport, shown in Figure 20, appears to indicate that STEM forecasts for 2016 were higher than actual usage by around 15-20% in total. This should be factored by the area of the STEM zone covering this patronage being larger than the South Perth Activity Centre. Taking into consideration the differences in areas, the level of 2016 patronage forecast within STEM appears reflective of 2017 conditions.

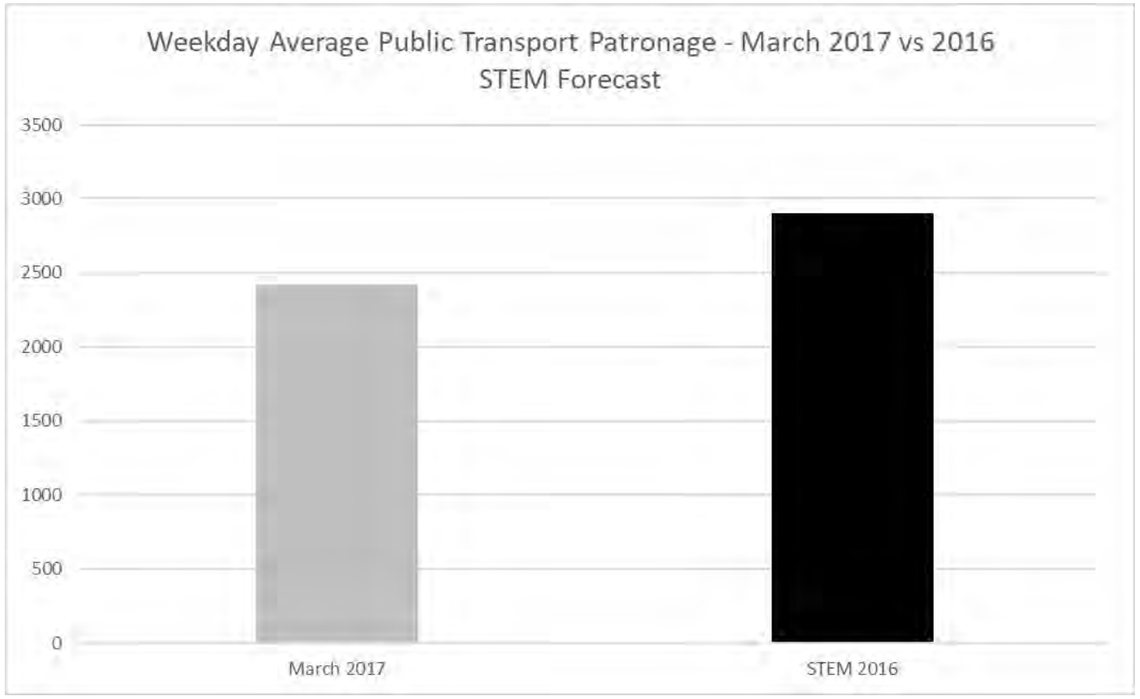

Figure 20 Weekly average public transport patronage comparison

The other element to the public transport usage, was the split between bus and ferry usage within STEM as opposed to the actual patronage levels. STEM 2016 forecast that there would be a higher bus patronage than ferry usage.

The actual splits for 2017 are shown in Figure 21 and Figure 22 for weekday, Saturday and Sunday. These splits show that there is higher ferry usage on weekdays and weekends associated with non-commuter trips. Within the Activity Centre, total overall weekday trips are also higher by Ferry. The overall public transport context analysis indicates that:

- Ferry usage outstrips bus usage for all time periods in the Activity Centre.
- There is a clear connection between Ferry usage and non-commuting trips between South Perth and Elizabeth Quay.
- There are minimal non-commuting trips made by bus to and from the Activity Centre.
- Bus patronage has plateaued in the Activity Centre in the past few years.
- Overall public transport accessibility within the Activity Centre in terms of standard walking distances is good and not seen as a barrier to use.
- Connection by public transport to the other Activity Centres in and adjacent to South Perth is poor and not competitive with private vehicles and, in many cases, cycling.

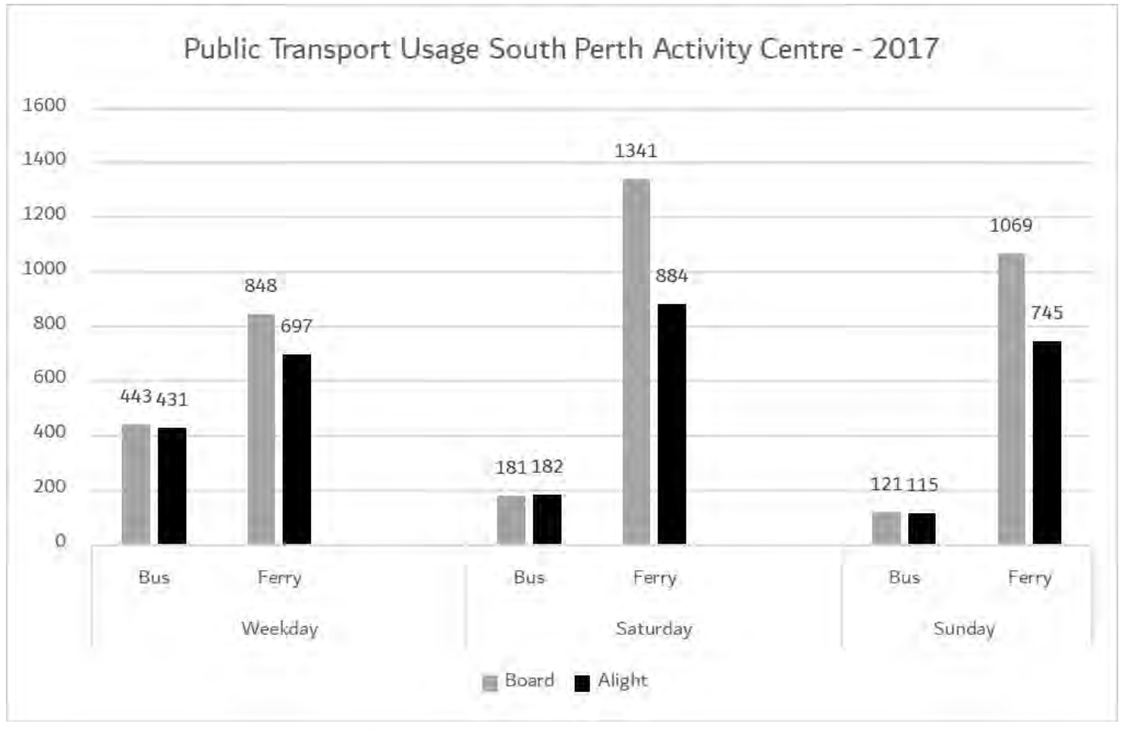

Figure 21 Public transport usage for Activity Centre 2017

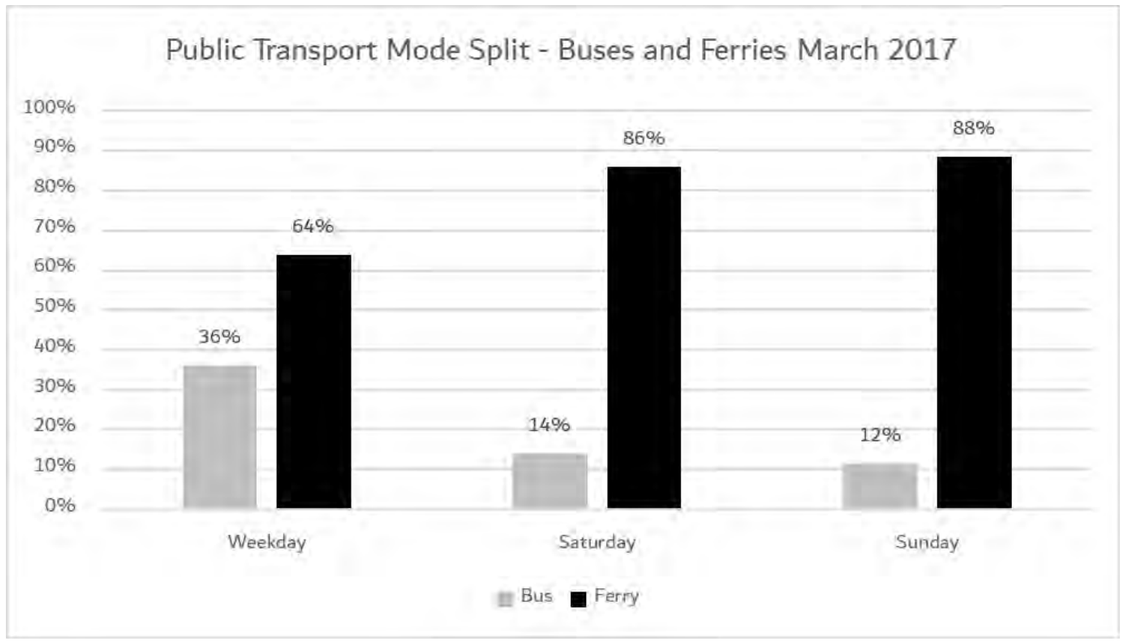

Figure 22 Public transport use by mode 2017

4. PEDESTRIAN MOVEMENT AND AMENITY

4.1 Pedestrian Movement

There is a high level of pedestrian facility provision in the Activity Centre with the vast majority of streets having footpaths on both sides. There is substantial provision of high quality shared paths in recreation reserves and along the Kwinana Freeway.

The key desire lines for pedestrians are heavily related to leisure or tourist based trips in the Activity Centre. At the core of most key pedestrian desire lines are the Perth Zoo or the Recreational Shared Path that runs along the Swan River. The key existing desire lines, as indicated on Figure 23, are:

- Between the Mends Street Ferry Terminal and Perth Zoo. The terminal is the major existing Public Transport entry point to the Activity Centre and is heavily used by visitors to the Zoo, patrons visiting South Perth for views back to Central Perth or for attending restaurants and cafes in South Perth.
- Across the Narrows Bridge into the Activity Centre. This route provides the key pedestrian route to and from Central Perth. It is a popular recreational route for people completing a loop around the Swan River.
- Along and around Mends Street in the main commercial, entertainment and retail area within the Activity Centre. Pedestrian trips dominate this area.
- Pedestrian movements between parking areas along Labouchere Road and Richardson Street to Perth Zoo. There are pedestrian only traffic signals located on Labouchere Road to allow people to safely cross with signalised priority.
- Along the South Perth foreshore.

The key desire lines for pedestrians within the Activity Centre is reinforced by heat mapping available from the commercial product, Strava. The application is popular with recreational joggers and therefore reflects a small user group. The image of the peninsula shown in Figure 24 is a heat map of the popular routes recorded by joggers and walkers. The key routes are:

- Along the South Perth foreshore
- Along the Kwinana Freeway using the PSP for north-south trips
- Along the Labouchere Road corridor
- Along Melville Parade accessing the existing bridge crossing of the Kwinana Freeway
- Along Mill Point Road leading up to Mends Street from the east.

To examine the existing context, an analysis of the commercial product, Walkscore, was completed. The score ascribed to locations around the Activity Centre for walking shown on Figure 25 is generally poor for an Inner City location and reflective of the type of urban form and land use, low provision (and use) of public transport and geographical constraints. Walkscore bandings are:

- 90–100 Walker's Paradise: Daily errands do not require a car
- 70–89 Very Walkable: Most errands can be accomplished on foot
- 50–69 Somewhat Walkable: Some errands can be accomplished on foot
- 25–49 Car-Dependent: Most errands require a car
- 0–24 Car-Dependent: Almost all errands require a car

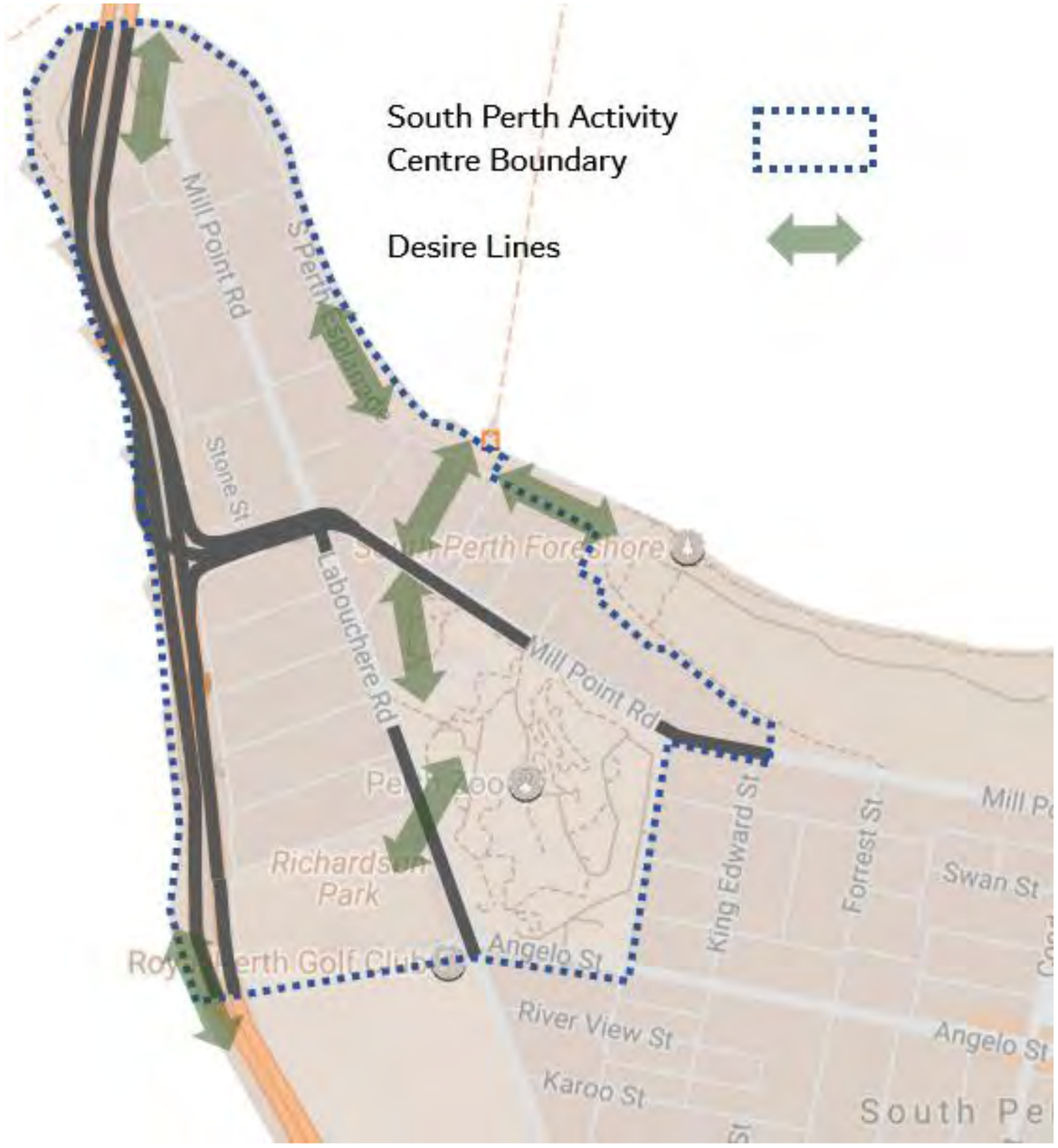

Figure 23 Desire lines - Activity Centre

Figure 24 Strava heatmapping for run activities - Activity Centre (source: Strava)

Figure 25 Walkscore bandings - Activity Centre

5. CYCLING

5.1 Cycle Network

The City of South Perth is presently developing a joint Bicycle Plan alongside the Town of Victoria Park to supersede the exiting 2012-2017 Bike Plan. The South Perth Activity Centre area includes two primary shared use paths along the Kwinana Freeway and Swan River (Sir James Mitchell Park). Count sites along these two main routes are permanent locations with data available up to 2015. The year by year average counts for Monday to Friday and Monday to Sunday for the Sir James Mitchell Park location (just to the east of the Activity Centre boundary) are shown in Figure 26 and Figure 27.

These counts show that, during the period from 2011/12 to 2014/15, there was an incremental growth in recorded cycling trips along this path. There was a lower level of growth along the Kwinana Freeway path. Use of the paths also fluctuates between week days and weekends. Figure 27 shows the hourly usage profile of the Sir James Mitchell Park path in 2015. There are two recorded periods, average weekdays and average weekends. Figure 28 sets out the existing cycling network plan.

Whilst the weekday period shows the tidal fluctuation associated with commuter cycling, the weekend average hourly counts show that there is a substantial peak in the morning (associated with casual, recreational trips) but then use tapers off. There is also a higher use of the clockwise path around the Swan River. Overall cycling use in South Perth is dominated by the presence of through commuting cycle trips, rather than more fine grained use of local streets. This is also evident in collated Strava data shown in Figure 29 which indicates the dominance of commuting routes along shared use paths.

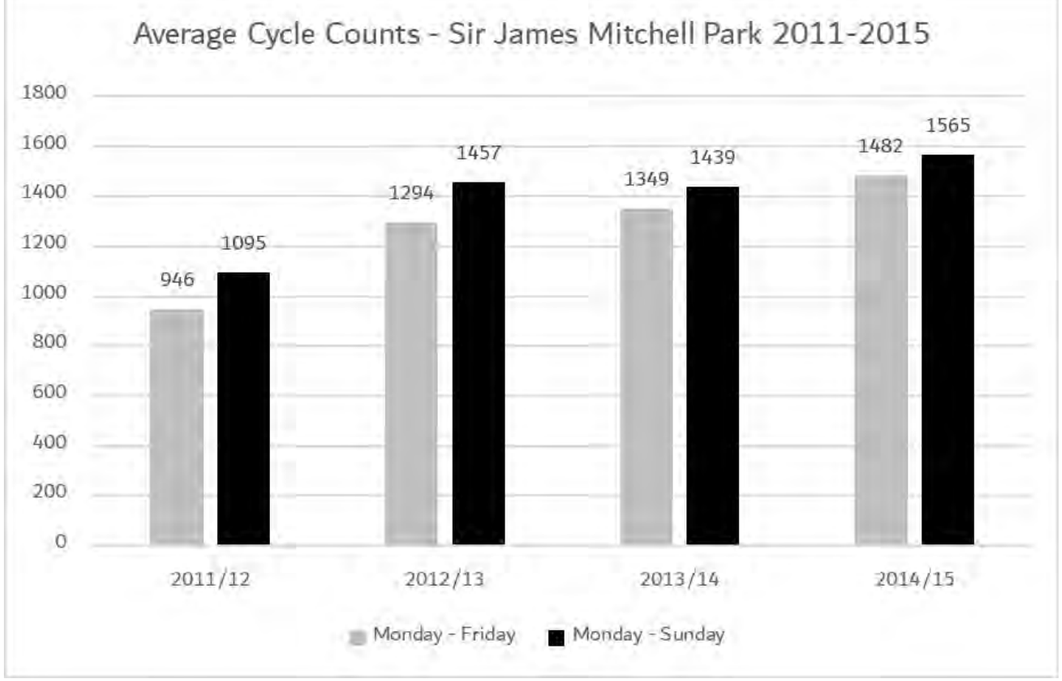

Figure 26 Cycle counts Sir James Mitchell Park 2015

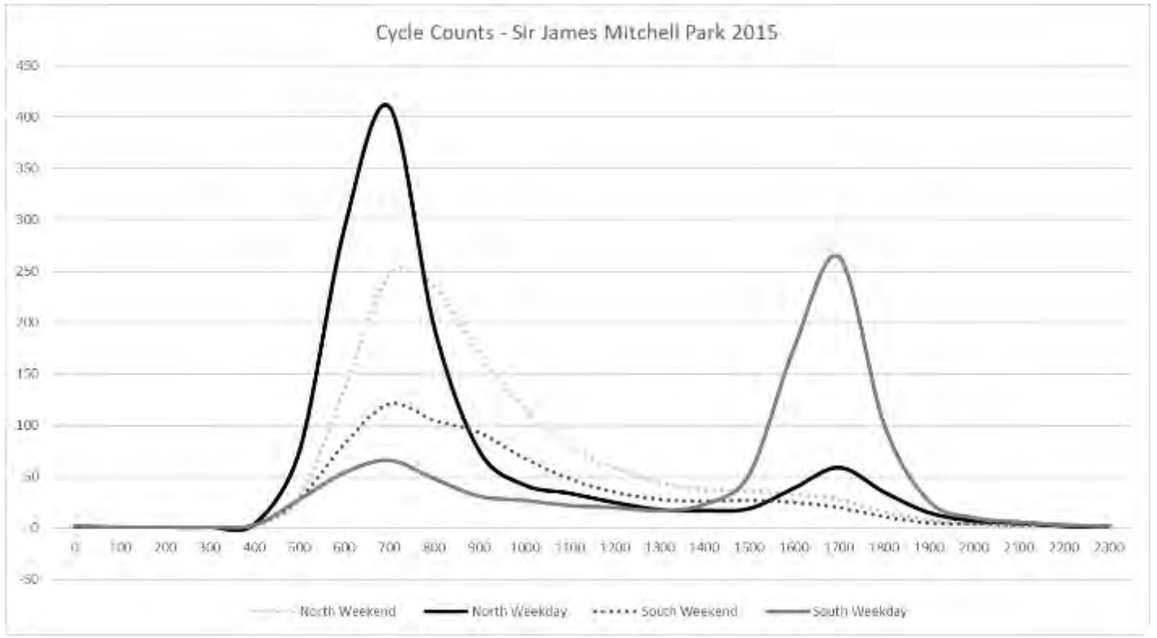

Figure 27 Cycle counts Sir James Mitchell Park 2015 - hourly profile

Figure 28 Department of Transport cycle map - Activity Centre

Figure 29 Strava heatmapping for cycling activities - Activity Centre (source: Strava)

6. VEHICULAR MOVEMENT AND ACCESS

6.1 Vehicular Movement and Access

Traffic volumes in the Activity Centre were set out in the 2016 South Perth Station Precinct Transport and Access Study and are replicated on Figure 30. The volumes in the location of the Activity Centre would not have fluctuated substantially since the 2015 data was collected.

In addressing traffic volumes, the Study states:

"*Peak hour intersection surveys were undertaken in October 2015. Traffic volumes were obtained from the City of South Perth at numerous locations within the study area. These traffic counts on the Council-controlled roads were collected in February 2016 by the City of South Perth.*

The traffic volumes on the on and off-ramps to the Kwinana Freeway at Mill Point Road west of Labouchere Road are based on the latest counts from the Main Roads WA website from 2014/15.

The Average Weekday Traffic (AWT) volumes are summarised to the nearest 100 vehicles and shown on Figure 30. *As expected, the highest traffic volumes are generated along Mill Point Road and Labouchere Road (District Distributor B type roads).*

Traffic volumes for other access roads, such as Melville Parade and Richardson Street, were significantly lower".

In addition to the collection of traffic information, the 2016 South Perth Station Precinct Transport and Access Study also undertook an analysis of mid-block capacity for three key traffic routes in the Activity Centre.

The Study notes:

"*A midblock capacity analysis was undertaken for all roads (other than access roads) where traffic volume data was available. Typical mid-block capacities for urban roads with interrupted flow have been sourced from Austroads Guide to Traffic Engineering Practice Part 2: Roadway Capacity.*

Based on the existing traffic volumes, all roads had sufficient mid-block capacity and this is shown for the roads in study area as shown in (Figure 31)".

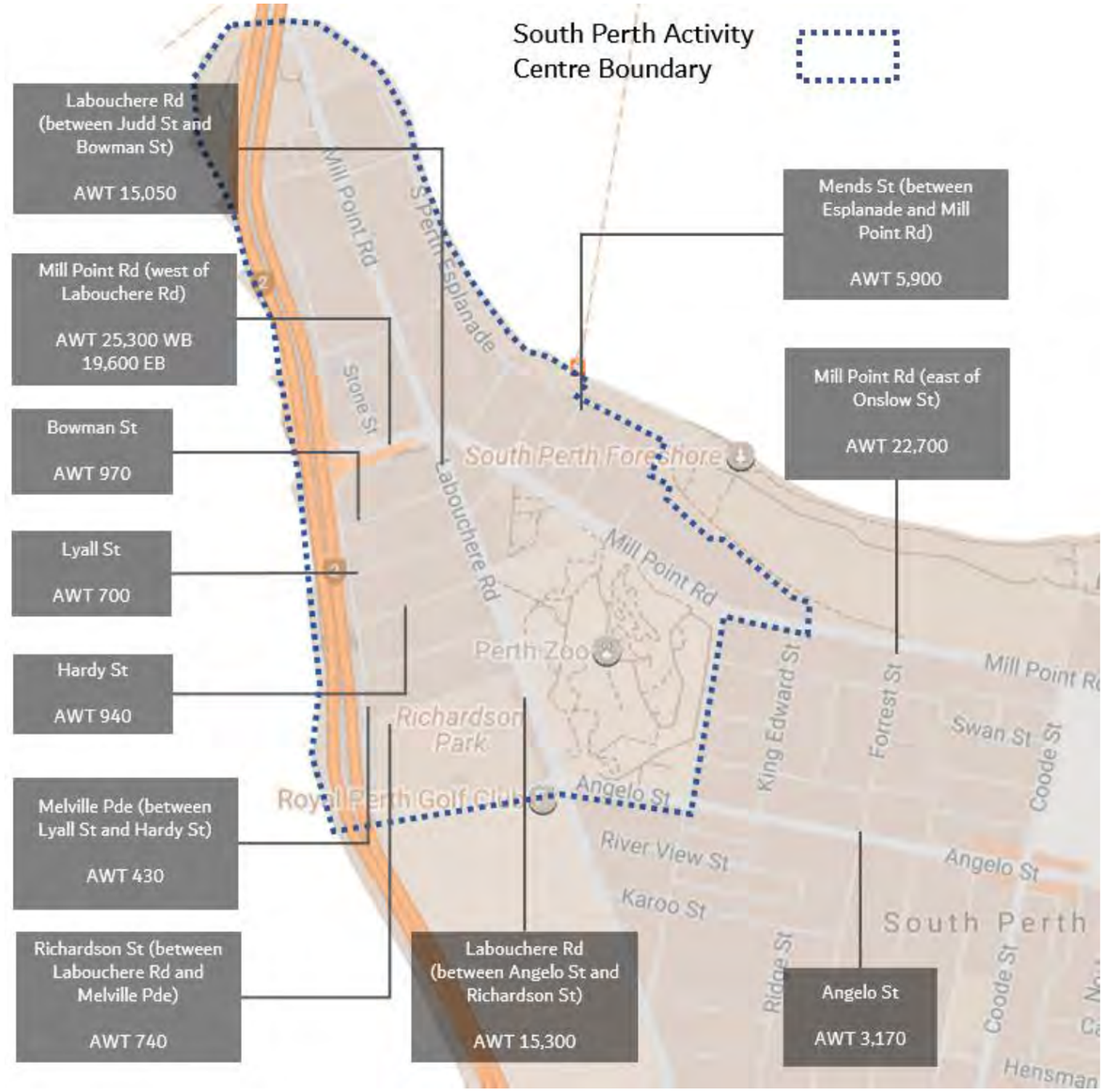

Figure 30 Average weekday traffic volumes

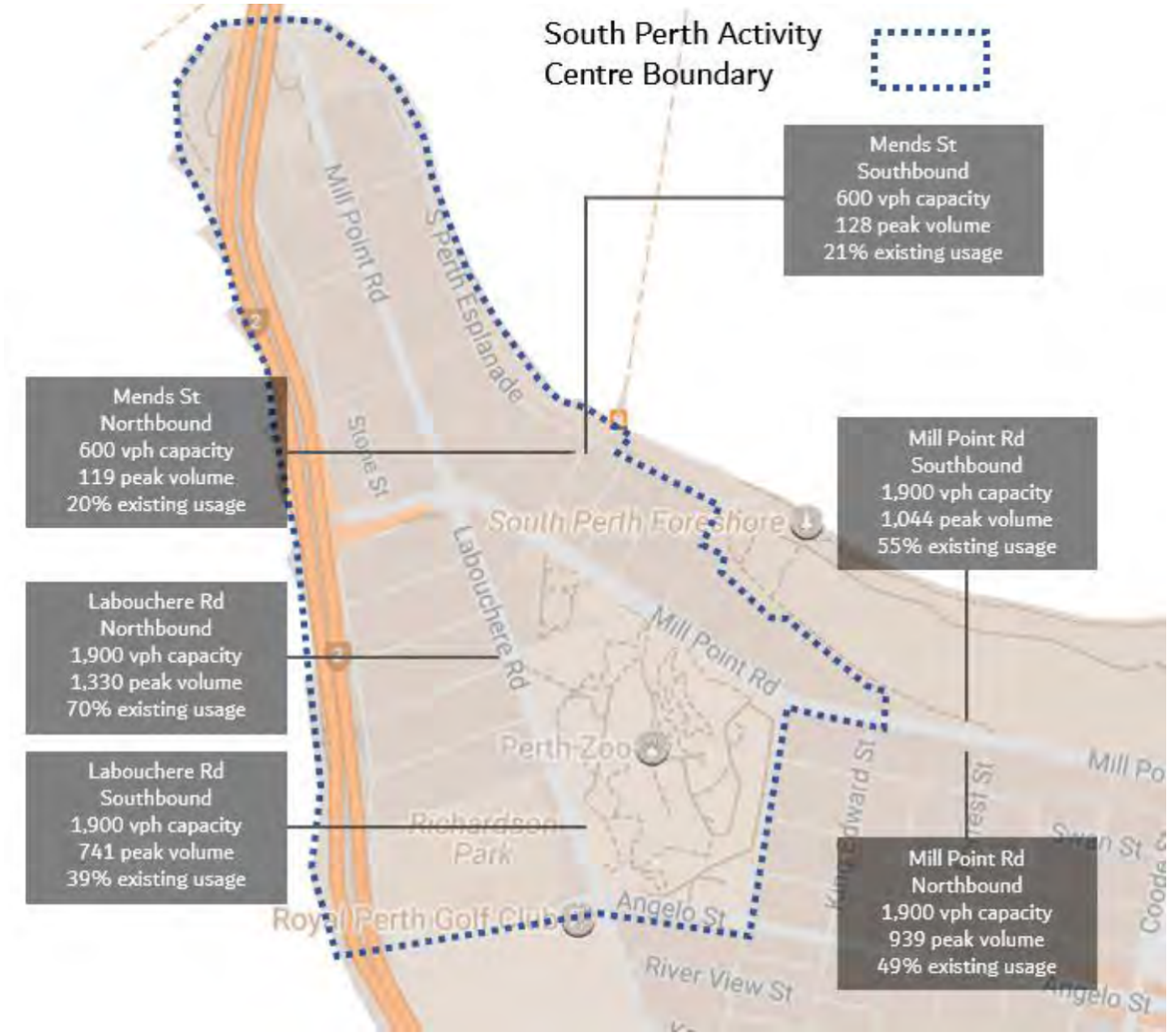

Figure 31 Mid-block capacity analysis 2016 South Perth Station Precinct Transport and Access Study

In response to a range of development and traffic related issues, South Perth commissioned the building of a traffic simulation model in 2016 to assist in informing both development assessment processes and traffic management proposals.

The coverage of the modelled area is shown on Figure 32, with the South Perth Activity Centre area modelled in detail to reflect existing and proposed developments. Canning Highway has only recently been included in the model. The AM and PM peak hour models have been calibrated to 2016 conditions with demand matrices developed based on ROM24.

The 2016 model outputs reflect the existing conditions of the local street network and regional road connections. In particular, the link delay plots shown in Figure 33 show that the vast majority of the network is comprised of local streets that experience minimal traffic congestion or delay issues in the peaks. The volume over capacity outputs of the model reflect average conditions where delays of vehicles are output in seconds – low delays on Figure 33 are in green with higher delays in red.

Within the Activity Centre, the key locations for traffic delay and peak period congestion are confined to the approach to the Kwinana Freeway on ramp from Labouchere Road and Mill Road and the signalised intersection of Mill Point Road and Mends Street.

This has been a long recognised reality and there has been substantial focus on these locations in the context of both planning and transport planning issues.

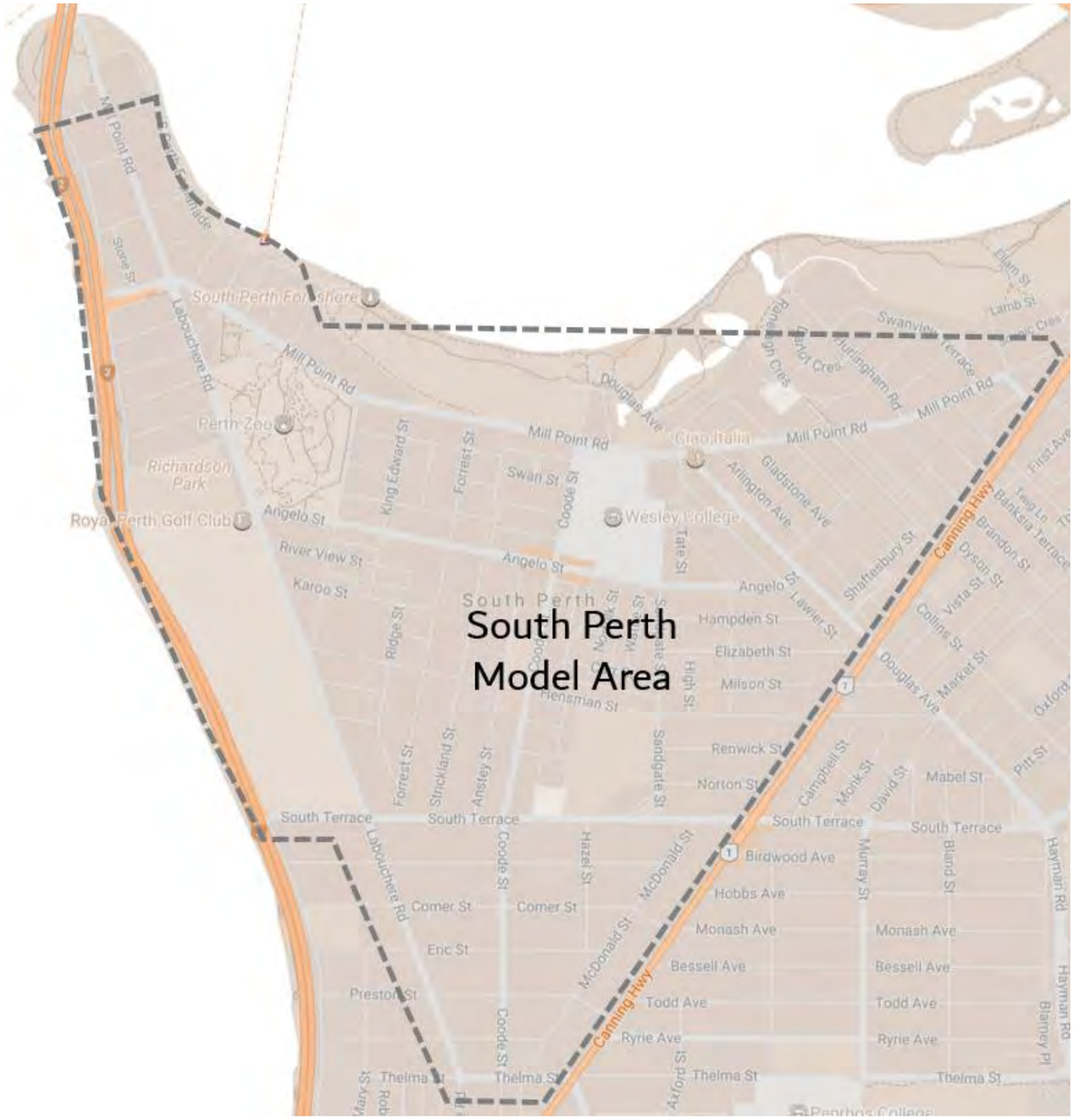

Figure 32 Microsimulation traffic model boundaries

AM Peak Model – Link Delays

PM Peak Model – Link Delays

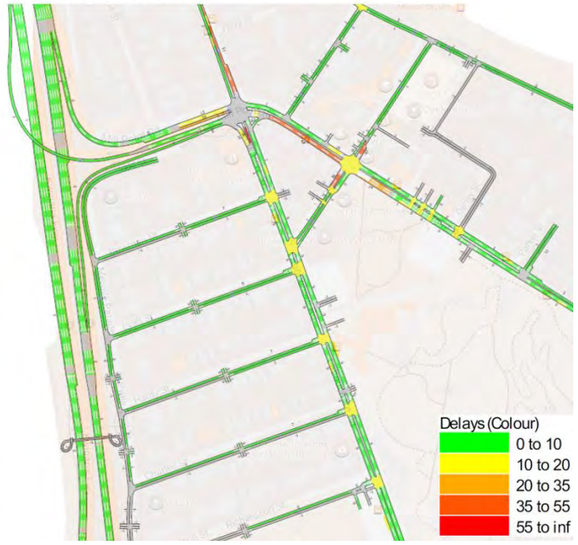

Figure 33 Model link delay outputs - AM and PM peak movements

6.2 Travel Context

Recognising that the main intersections are both the lynchpin to the movement of traffic as well as critical in terms of pedestrian movements, South Perth commissioned nano-simulation of the key intersections in 2017 alongside the existing give way intersection of Richardson Street and Labouchere Road.

The study covered potential signal optimisation and co-ordination, improvements to pedestrian access, revised layouts for the intersections and testing of new traffic signals at the existing give way intersection of Richardson Street and Labouchere Road. Separately, Main Roads WA also modelled the intersections to inform operational decisions around signal optimisation and performance. Both studies identified potential improvements and outcomes that will be considered in the South Perth Activity Centre Plan. They were:

- Banning some movements at the intersection of Mill Point Road and the Freeway ramps
- Change pedestrian movements at the intersection of Mill Point Road and the Freeway ramps to remove one leg and install a staged crossing on the eastern side of the intersection
- Install barriers and address access movements at adjacent development sites
- Widen out pedestrian refuge areas and kerbs at the intersection of Mill Point Road and Mends Street to cater for higher pedestrian volumes
- Examine signal times and phasing to improve pedestrian access
- Main Roads WA doesn't support traffic signals at Richardson Street at present however the City of South Perth will seek to implement changes to access movements within the South Perth Activity Centre to support this intersection with Labouchere Road being installed.

Outside of peak periods, the network does not sustain any congestion of note although it is recognised that special events (such as Australia Day fireworks) or school holidays result in higher levels of traffic, parking occupancy and congestion.

6.3 Vehicular Movement and Access – ROM24

The overarching strategic traffic model operated by Main Roads WA, ROM24, was examined to understand the strategic context of traffic movements, as well as provide a comparison to the South Perth Station Precinct Transport and Access Strategy. ROM24 provides forecast traffic volume information based on land use details extracted from the WAPC and road network proposals put forward by Main Roads WA. Forecast years examined are 2021 and 2031 – with the 2031 plot shown in Figure 34.

Figure 34 ROM24 forecast all day model outputs for 2031

Within the South Perth Station Precinct Transport and Access Strategy, Table 13 provided an assessment of the various forecast year outputs for the key links through the Activity Centre, Labouchere Road, Mill Point Road and the Freeway entrance and exit ramps.

All Day forecast year vehicle plots were requested from Main Roads WA to understand the updated context of vehicle volumes. For the South Perth Station Precinct Transport and Access Strategy, land use inputs into ROM24 were taken from the Main Roads WA Road Planning Branch. Network proposals were taken from the DoT Moving Network People Plan and Public Transport Plan for Perth 2031.

For the Activity Centre Plan, Main Roads WA provided forecast year plots based on land use taken from the WAPC MLUFS database (which is based on existing development proposals and forecast land development supplied by Local Government) and the transport network reflected the base 2031 road network. That network included Freeway expansion and other schemes presently under construction.

The differences between these plots are set out in Table 3. The final column shows the difference between 2016 observed traffic volumes and the 2031 ROM24 forecast volumes.

The general differences between the 2016 observed volumes and the 2031 forecast year volumes are that traffic is forecast to decrease along the Mill Point Road corridor with traffic along the Labouchere Road corridor forecast to increase.

There are substantial variances in the forecast traffic volumes between the previous assessment within the South Perth Station Precinct Transport and Access Strategy and the more recent version of ROM24.

This can be attributed to a range of factors, including:

- How the network is coded
- Land use within previous versions of ROM or ROM24 were vastly overstated in some circumstances, leading to higher forecast volumes
- Changes in network – for instance Freeway widening and measures would take some additional regional traffic away from Mill Point Road.

The South Perth Station Precinct Transport and Access Strategy qualifies the use of forecast year information, noting the impact of land use inputs and also the significant variances that are possible in how traffic is either forecast or attributed to certain sections of road.

In order to provide a magnitude of scale in terms of impacts, the South Perth Station Precinct Transport and Access Strategy undertook a midblock capacity assessment of key streets.

The results of this assessment, which used observed peak hour flows and a theoretical capacity of 1900 vehicles per hour (per direction with capacities taken from Austroads Guide to Traffic Engineering Practice Part 2: Roadway Capacity) are replicated in Table 2. This analysis reflected that the majority of road links in 2031 would be operating at or over capacity during peak hours taking into account forecast traffic volumes.

Table 2 Future midblock capacity analysis South Perth Station Precinct Transport and Access Strategy

Table 14 Future Capacity Analysis Based on ROM24 Results (****)

Road	Direction	2016	2021	2031	2031 S
Labouchere Road (between Angelo Street and Mends Street)	Total Northbound	69%	104%	164%	158%
	Total Southbound	38%	79%	138%	127%
Labouchere Road (between Mends Street and Mill Point Road)	Total Northbound	52%	77%	132%	126%
	Total Southbound	32%	69%	146%	137%
Mill Point Road (east of Mends Street)	Total Westbound	55%	66%	86%	84%
	Total Eastbound	61%	77%	97%	96%
Freeway On-ramp	Exit Freeway	103%	149%	207%	199%
	Enter Freeway	124%	175%	243%	238%

Table 3 Forecast traffic volume analysis for Activity Centre

		Average Annual Weekday Traffic (AAWT)							2017 Plots		
Road Link	Direction	2016 Survey	2016 ROM24	Difference	2016 Calibrated	2021 Calibrated	2031 Calibrated	2031 (S) Calibrated	2021 ROM24	2031 ROM24	Difference 2016 Obs and 2031
Labouchere Road (between Angelo Street and Mends Street)	Northbound	10,130	15,100	4,970	10,130	15,130	23,930	23,130	10,400	12,100	1,970
	Southbound	5,170	11,500	6,330	5,170	10,670	18,670	17,170	10,100	7,300	2,130
Labouchere Road (between Mends Street and Mill Point Road)	Northbound	9,900	18,000	8,100	9,900	14,700	25,100	24,000	13,300	14,900	5,000
	Southbound	5,140	13,100	7,960	5,140	10,940	23,140	21,740	11,600	10,200	5,060
Mill Point Road (east of Mends Street)	Westbound	10,300	9,300	N/A	13,180	15,580	20,380	19,880	7,700	8,900	-1,400
	Eastbound	9,700	9,600	N/A	11,675	14,575	18,375	18,175	9,100	9,400	-300
Mill Point Road (west of Mends Street)	Westbound	10,980	7,100	-3,880	10,980	14,480	22,280	21,580	5,600	6,300	-4,680
	Eastbound	10,475	8,400	-2,075	10,475	13,475	17,575	16,775	8,400	6,800	-3,675
Freeway On-ramp	Exit	19,600	21,400	1,800	19,600	28,300	39,400	37,900	19,000	15,300	-4,300
	Enter	25,300	25,100	-200	23,500	33,200	46,200	45,200	18,900	21,200	-4,100

6.4 Peak Hours

To understand the implications for revised ROM24 forecast year models, AM and PM peak period plots for the Activity Centre in 2031 and Volume over Capacity plots were requested. The midblock peak period plots (for two hours in the morning and afternoon) are shown for the AM in Figure 35 and the PM Figure 36, with Volume over Capacity plots in Figure 37.

In addition, to understand present peak hour movements, an analysis of 2017 SCATS[1] data at the intersection of Labouchere Road, Mill Point Road and the Freeway Ramps was completed to inform peak hour volumes as a percentage of overall daily traffic. This was completed to allow for a comparison of the analysis completed in the South Perth Station Precinct Transport and Access Strategy.

The results of the peak hour analysis are shown in Table 4, with significant variances in approaches depending on time and direction.

The ROM24 outputs for peak periods and the Volume over Capacity analysis indicates that there is requisite midblock capacity available for the forecast traffic volumes to be within accepted boundaries from a strategic level. None of the links within the Activity Centre network approach a practical capacity of at least 0.85

The peak hour proportions shown in Table 4 indicate that the volumes are generally tidal – in particular traffic moving along the Freeway / Labouchere Road corridor. This highlights the primacy of this movement through the area and ultimately the impact on the Activity Centre caused by sub-regional traffic travelling from elsewhere in South Perth through the area or from origins or destinations outside of South Perth.

Table 4 Peak hour proportions from SCATS volumes in 2017

Road Link	Direction	2017 Peak Hour AM	2017 Peak Hour PM
Labouchere Road (between Mends Street and Mill Point Road)	Northbound	11%	9%
	Southbound	5%	12%
Mill Point Road (west of Mends Street)	Westbound	9%	7%
	Eastbound	7%	7%
Freeway On-ramp	Exit	7%	11%
	Enter	10%	8%

Figure 35 ROM24 2031 AM peak period forecast vehicle movements

[1] Sydney Coordinated Adaptive Traffic System (SCATS) collects traffic volume data using detectors at traffic signals (located near stop lines). SCATS data is captured 24 hours a day (midnight to midnight). Data is available at all signalised intersections (including pelican/puffin crossings) across the state. This data can be used to measure traffic volume including lane and/or turning counts (where available).

Figure 36 ROM24 2031 PM peak period forecast vehicle movements

Figure 37 ROM24 2031 peak period forecast volume over capacity outputs

6.5 Commentary - Modelling

A substantial amount of traffic modelling has been completed for the Activity Centre, all of which highlight a number of key issues for vehicle movements:

- The intersection of Labouchere Road, Mill Point Road and the Freeway ramps is a congested intersection and will continue to be so in the future. The City of South Perth and Main Roads WA are addressing this.
- The corridor along Labouchere Road and the Freeway is the highest volume traffic corridor and carries the highest volumes in peak hour and throughout the day.
- Local development will contribute to traffic volumes in the Activity Centre in the future resulting in the requirement to examine the capacity, management and configuration of some intersections.

As noted within the South Perth Station Precinct Transport and Access Strategy:

"*The roads within the precinct are adequate to accommodate the existing traffic volumes, however the future traffic forecasts from the ROM24 model from Main Roads WA indicates higher levels of congestion will occur in the peak direction. It is clear from the forecast traffic volumes that there will be considerable pressure on Labouchere Road from 2031 should development occur as proposed... there will need to be a significant change in travel behaviour to allow the network to operate satisfactorily beyond 2031 to include broader transport initiatives*".

7. PARKING

7.1 South Perth Parking Strategy

The completion of the City of South Perth Parking Strategy in May 2016 established a framework for parking and travel demand management. This comprehensive strategy recommended a new approach to parking management and set out a series of parking control areas, including one focused on the South Perth Activity Centre (South Perth Station PCA), as shown in Figure 38.

The first major recommendation of the Strategy was based on the overall approach to travel demand management and the importance of parking:

"*Change the City's approach from the current predict and provide to a demand management approach whereby parking facilities are used more effectively and parking is proactively managed to align with the agreed strategy".*

The key components of this recommendation were:

a) *"Focus on people access not vehicle access*

b) *Provide efficient and effective alternatives to car access*

c) *Parking policy and strategy must support sustainable transport*

d) *The appropriate amount of parking for the centre will be well below the unconstrained demand for parking*

e) *The provision of parking requires a demand management, not a demand satisfaction approach*".

Figure 38 City of South Perth Parking Strategy precinct plan

7.2 On Street Parking – PCA1

The framework around on-street parking management for the entire City and in turn for the South Perth Station Precinct area was established in the City of South Perth Parking Strategy finalised and adopted in May 2016. The Parking Management Action Plan for the Precinct (PCA1) was completed in March 2017.

PCA1, as shown in Figure 39, generally accords with the South Perth Activity Centre Plan area. There are 1035 on-street bays and 1002 off-street bays within the overall Activity Centre boundary. Given the recent completion of both these technical assessments, their findings and recommendations for on-street parking management are taken as a given for the purposes of the Activity Centre Plan.

The key findings of the Parking Management Plan were:

1. There is available parking capacity within a reasonable walking distance (400m) of the key parking generators.
2. Existing parking management situation is inconsistent and inefficient, with conflicting management strategies between on-street and off-street, public and private, as well as between adjacent parking zones.
3. Prime parking bays adjacent to high-demand destinations are still being used for commuter and construction vehicle parking, despite existing parking restrictions.
4. Free duration-restricted on-street parking, while intended to support short-stay parking, does not adequately prevent use by local employees through periodic rotation of vehicles within a zone.
5. There are opportunities to use paid parking and duration restrictions to more effectively distribute demand across the zone, prioritising 'prime' parking locations for the highest value purposes.

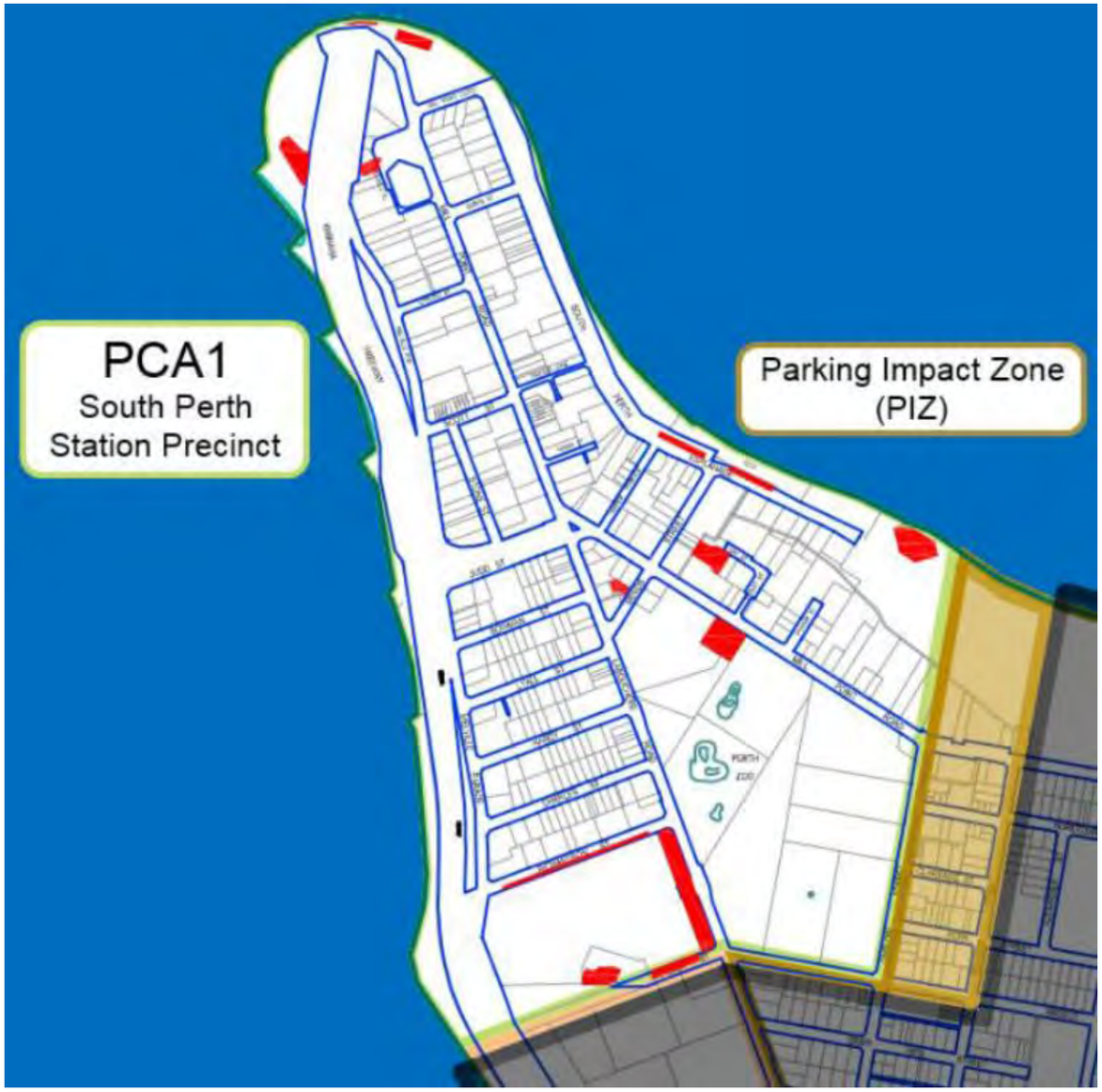

Figure 39 Parking Management Action Plan for the Precinct (PCA1)

For the purposes of the Parking Management Action Plan, on and off-street parking bays were surveyed in October 2016 to understand usage and effectiveness of timed measures. All bays were surveyed within the 6 precincts – the split of on and off-street parking available within the Activity Centre is shown in Figure 40.

The duration of parking within the Activity Centre showed a high turnover of bays with a high number of short term stays of one to three hours. The use of available parking bays reported in the Parking Management Action Plan is shown in Figure 41. The surveys also showed that there was a large volume of commuter parking associated with commercial land uses in the Activity Centre. The analysis for PCA1, embedded in the Parking Strategy, underpinned the recommendations for on-street parking.

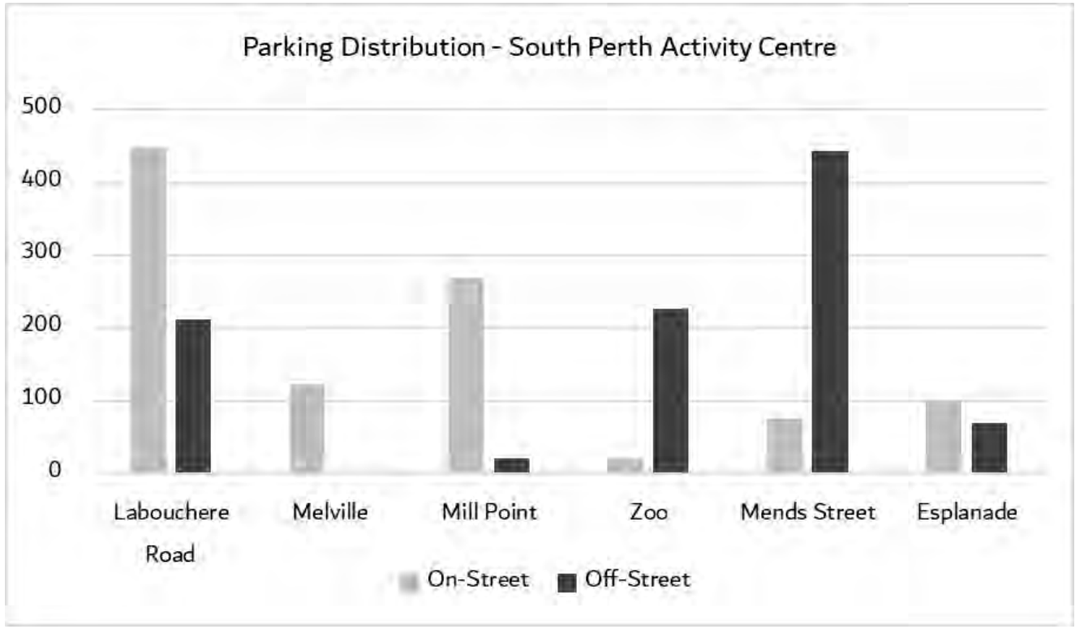

Figure 40 Parking distribution - South Perth Activity Centre

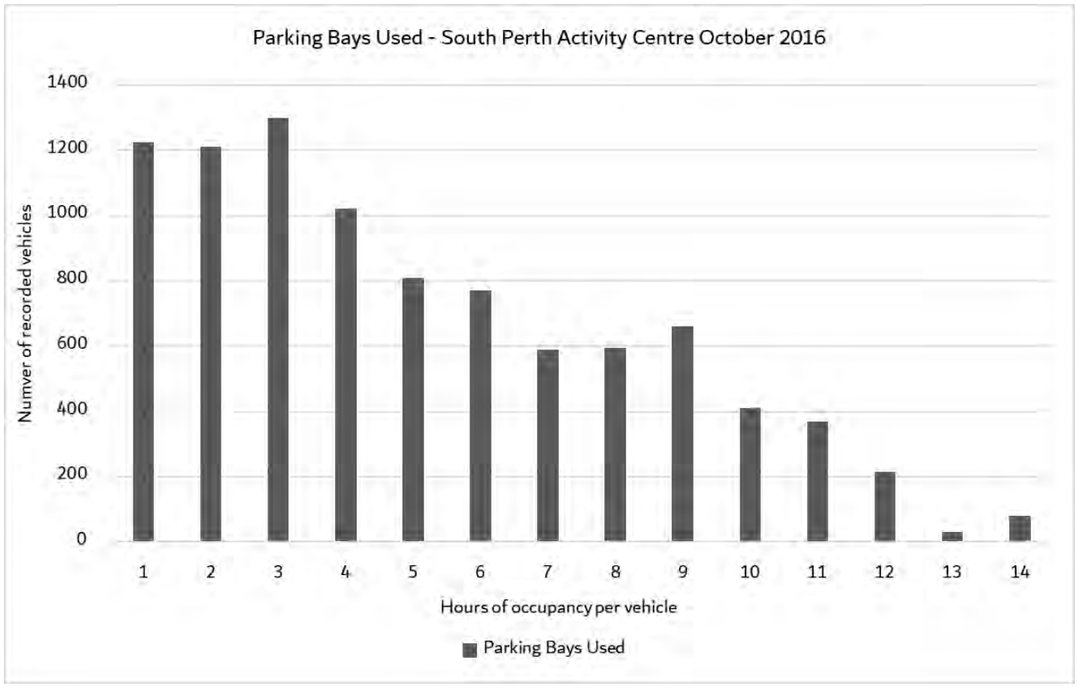

Figure 41 Parking bay usage October 2016

7.3 Parking – PCA1

The recommendations of the Parking Management Plan for implementation over a three year period, with the on-street outcomes by 2019-20 shown in Figure 42, were:

1. Consider the existing private and public parking supply as part of an integrated system. Work with and provide guidance to private suppliers to maximise their parking efficiency.
2. Manage demand to promote parking for specific users and land use types, using timing restrictions and fee payment schedules. These mechanisms may change to reflect different demand scenarios: weekday, weekend, school holidays, intense local construction periods.
3. Demand-responsive parking may be used (assuming high-quality occupancy data) to maximise the efficiency of the public parking supply, redistributing demand across a wider area and freeing up prime parking locations for high-value purposes.
4. Ongoing annual review of this Parking Management Plan, alongside the City's statutory parking charges review; to adapt to changes in the built environment and road network, and to accommodate construction traffic and parking requirements. Fine-grained changes in parking will be required throughout the year, which use the Parking Management Plan as a baseline document.
5. Parking wayfinding is an important tool to maximise the effectiveness of the parking system and should be employed in stages of increasing information and complexity, from static signage in the short term to dynamic signage or mobile application tools, corresponding to the availability of data and funding.

7.4 Development Site Parking – SCA1

On-site parking provision in the Activity Centre is set out within the City of South Perth Town Planning Scheme No.6 Scheme Text and related policies. Specifically for the Activity Centre, Amendment No.46 to the scheme added in Schedule 9A covering the Special Control Area SCA1 – South Perth Station Precinct. The area related to SCA1, which does not capture the entire Activity Centre, is shown on Figure 43.

The controls within Schedule 9A covering parking are within two broad categories. The general controls on parking (set out in Table 5) use minimum provision of bays for developments. For comprehensive new development (*means a development which is determined by Council not to be a minor alteration, addition or extension to an existing development*) seeking additional building height, there are a series of performance criteria that have to be achieved.

The application of minimum parking rates, without maximum provisions, allows for substantial over provision of parking for residential developments and in turn fosters private vehicle mode trips. Within the performance criteria for comprehensive new development, maximum rates are applied to residential land uses which provides the level of control envisaged within SPP4.2.

Provision of bays for non-residential land uses also imposes a minimum as opposed to more formal controls. Clause 9.2 in the Development Requirements does provide for a reduction in bays associated within non-residential uses which is subject to assessment and agreement with the City.

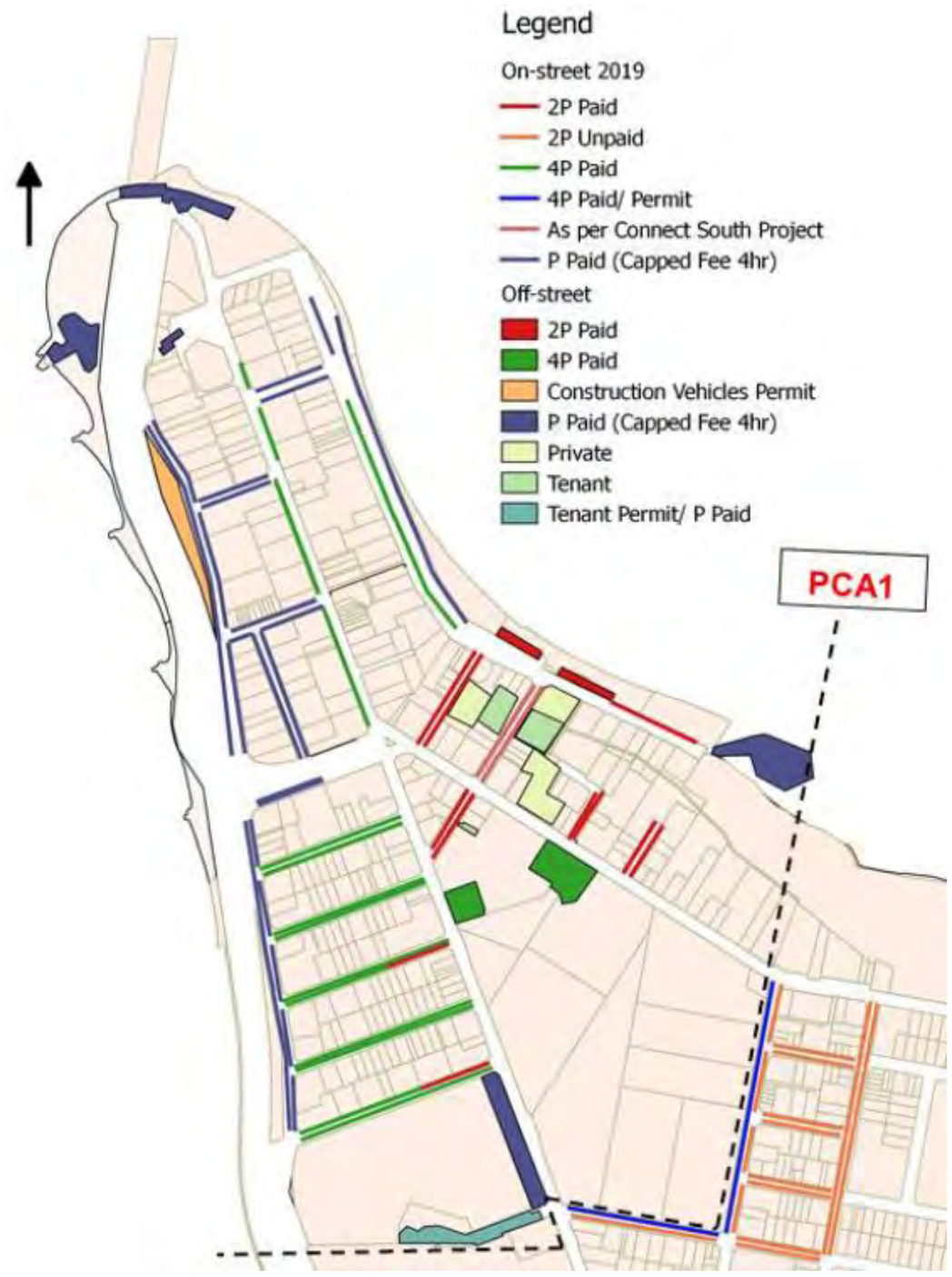

Figure 42 Parking Control Area 1 (PCA1) proposed on-street controls within Activity Centre

Figure 43 Special Control Area SCA1 sub-precincts

Table 5 Schedule 9A parking controls

SCA1 – Development Requirements	Guidance Statements
Element 9: Parking 9.1 Subject to Development Requirement 9.2, the minimum required on-site parking bays shall be as follows: (a) For residential uses – (i) 0.75 car bays per dwelling for occupiers of Single Bedroom Dwellings; (ii) 1 car bay per dwelling for occupiers of dwellings other than Single Bedroom Dwellings; (iii) 1 additional car bay per 6 dwellings for visitors; (iv) in addition to the required car bays, 1 bicycle bay per 3 dwellings; and 1 bicycle bay per 10 dwellings for visitors, designed in accordance with AS2890.3 (as amended). (b) For non-residential Uses – (i) 0.5 car bays per Tourist Accommodation suite; (ii) 1 car bay per 50 square metres of gross floor area for uses other than Tourist Accommodation; (iii) 10%, or 2, of the total number of required car bays, whichever is the greater, marked for the exclusive use of visitors; (iv) in addition to the required car bays, for staff use, 1 bicycle bay per 200 square metres of gross floor area designed in accordance with AS2890.3 (as amended); together with 1 secure clothes locker per bay; and 1 male and 1 female shower per 10 bays. 9.2 Notwithstanding Development Requirement 9.1 (b), for comprehensive new development consisting only of 2 or more non-residential uses, the Council may approve a lesser number of car or bicycle bays where it is demonstrated that the proposed number of bays is sufficient, having regard to different periods of peak parking demand for proposed non-residential land uses on the development site.	(a) In an urban area with excellent public transport and a highly walkable environment, there is a strong rationale not to apply the high levels of parking provision associated with suburban environments. (b) Having regard to the reduced parking requirements within the South Perth Station Precinct, no parking concessions are allowed except where a proposed comprehensive new development includes more than one non-residential use and those uses have different periods of peak parking demand. (c) On-site visitor parking bays need to be provided in a conveniently accessible location without obstructing entry to, or egress from, occupiers' parking bays.
Table B – Performance Criteria Design Consideration	Performance Criteria
4. Car Parking	The maximum permissible number of on-site parking bays for residential uses is as follows: (a) 1 car bay per dwelling for occupiers of 1 and 2 bedroom dwellings; (b) 2 car bays per dwelling for occupiers of dwellings containing 3 or more bedrooms.

8. MOVEMENT NETWORK PLAN – ACTIVITY CENTRE

8.1 Movement

State Planning Policy 4.2 (SPP 4.2) – Activity Centres for Perth and Peel establishes the five key movement network elements that are required to be addressed. These elements are then tied to performance indicators. They are set out in Table 6:

Table 6 Performance indicators

Content required	Performance Indicators
Public Transport Infrastructure	Prioritisation of public transport
Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists
Traffic Assessment	Improved access by all modes, including freight vehicles
Freight Servicing	Improved access by all modes, including freight vehicles
Centre Parking Policy	Provides for upper limits and common use of car parking

This section sets out the response on these five elements that will allow the South Perth Activity Centre Plan to achieve the performance indicators set out in SPP 4.2.

8.2 Movement – Modal Split

Within the State Planning Policy 4.2, there is no requirement to establish a mode split target for the Activity Centre. Understanding the implications for mode split is however critical and it underlines the premise for recommendations within the Activity Centre Plan.

Given the general alignment of the main travel mode splits between the Activity Centre and South Perth, existing South Perth mode splits were applied to employed persons in 2016 and then projected forward to 2031, as shown in Table 7.

If there was to be no alteration in mode splits for journey to work, the implications over this 15 year period are clear – a doubling in vehicle trips of residents for work purposes. This does not consider trips into the Activity Centre for commercial or retail employees. In order for the Activity Centre to function within its practical capacity, modal shift for trips is required.

The required modal shift also applies to non-work trips where the RAC research shown in Figure 11 indicated there was significantly higher use of private vehicles for non-work trips. For the Activity Centre to support the form of future development proposed, the mode split for all trips needs to be closer to those established for other inner city Activity Centres such as Subiaco. Subiaco was chosen as a comparator as the overall population profile and economic profile of that area is very similar to South Perth, as shown in Figure 44 and Figure 45.

The comparison in terms of the impact of mode split is illustrated in Table 8 where 2016 Journey to Work mode splits from Subiaco were applied to the projected 2031 South Perth Activity Centre employment population. The difference in overall profile compared to Table 7 is obvious. The introduction of additional public transport infrastructure, such as the South Perth Train Station, would further support mode shift from private vehicles.

Table 7 Projection of 2016 journey to work mode split proportions to 2031 population

	South Perth 2016	Population (Employed) 2016	Population (Employed) 2031
Train	0.3%	4	9
Bus	13.1%	210	417
LRT/Ferry	0.8%	13	25
Car, Driver	71.2%	1143	2269
Car, Passenger	5.1%	81	161
Bicycle	3.5%	56	111
Walked	1.5%	23	46
Other	4.2%	67	133
Total	100%	1598	3172

City of Subiaco 2016

↔ No significant change since previous Census (less than ±0.5%) ▲ Increased since previous Census
▼ Decreased since previous Census

Median age
39 ↔(0)
Greater Perth 36 ..
Western Australia 36 ..
Australia 38 ▲

Aboriginal and Torres Strait Islander Population
0.6% ↔(0.2%)
Greater Perth 1.6% ..
Western Australia 3.1% ..
Australia 2.8% ..

Couples with children
23% ▲(1.9%)
Greater Perth 32% ▲
Western Australia 31% ..
Australia 30% ..

Older couples without children
9% ▲(1.9%)
Greater Perth 9% ▲
Western Australia 9% ▲
Australia 10% ▲

Lone person households
32% ▼(-1.6%)
Greater Perth 22% ▼
Western Australia 22% ..
Australia 23% ..

Medium and high density Housing
57% ▲(2.1%)
Greater Perth 25% ▲
Western Australia 21% ▲
Australia 27% ▲

Median weekly household income
$2,017 ▲($244)
Greater Perth $1,636 ▲
Western Australia $1,582 ▲
Australia $1,431 ▲

Median weekly mortgage repayment
$604
Greater Perth $467
Western Australia $457
Australia $409

Median weekly rent
$435
Greater Perth $372
Western Australia $348
Australia $339

Households renting
38% ▼(-3.0%)
Greater Perth 26% ▼
Western Australia 27% ▼
Australia 29% ▲

Households with a mortgage
24% ▲(1.9%)
Greater Perth 40% ▲
Western Australia 37% ▲
Australia 32% ▼

Overseas born
33% ▼(-0.9%)
Greater Perth 36% ▲
Western Australia 32% ▲
Australia 26% ▲

Language at home other than English
15% ▲(1.1%)
Greater Perth 20% ▲
Western Australia 18% ▲
Australia 21% ▲

University attendance
8% ▼(-0.8%)
Greater Perth 5% ..
Western Australia 4% ..
Australia 5% ▲

University qualification
50% ▲(1.9%)
Greater Perth 23% ▲
Western Australia 21% ▲
Australia 22% ▲

Trade qualification (certificate)
8% ▲(0.8%)
Greater Perth 19% ▲
Western Australia 20% ▲
Australia 19% ▲

Unemployment rate
5.9% ▲(3.8%)
Greater Perth 8.1% ▲
Western Australia 7.8% ▲
Australia 6.9% ▲

Participation rate (population in labour force)
63% ▼(-1.9%)
Greater Perth 64% ▼
Western Australia 63% ▼
Australia 60% ▼

Public transport (to work)
18% ↔(0.5%)
Greater Perth 10% ..
Western Australia 9% ..
Australia 11% ▲

Figure 44 Subiaco 2016 population profile and economic profile

South Perth 2016

↔ No significant change since previous Census (less than ±0.5%) ▲ Increased since previous Census
▼ Decreased since previous Census

Median age
39 ▲(2)
City of South Perth 37 ▲
Greater Perth 36 ..
Western Australia 36 ..

Aboriginal and Torres Strait Islander Population
0.6% ↔(0.1%)
City of South Perth 1.3% ..
Greater Perth 1.6% ..
Western Australia 3.1% ..

Couples with children
20% ▲(1.7%)
City of South Perth 24% ▲
Greater Perth 32% ▲
Western Australia 31% ..

Older couples without children
9% ▲(2.3%)
City of South Perth 8% ▲
Greater Perth 9% ▲
Western Australia 9% ▲

Lone person households
30% ▼(-0.6%)
City of South Perth 28% ▼
Greater Perth 22% ▼
Western Australia 22% ..

Medium and high density Housing
68% ▲(1.1%)
City of South Perth 53% ▲
Greater Perth 25% ▲
Western Australia 21% ▲

Median weekly household income
$1,874 ▲($77)
City of South Perth $1,770 ▲
Greater Perth $1,636 ▲
Western Australia $1,582 ▲

Median weekly mortgage repayment
$517
City of South Perth $496
Greater Perth $467
Western Australia $457

Median weekly rent
$393
City of South Perth $380
Greater Perth $372
Western Australia $348

Households renting
39% ▼(-4.4%)
City of South Perth 35% ▼
Greater Perth 26% ▼
Western Australia 27% ▼

Households with a mortgage
22% ▲(0.6%)
City of South Perth 27% ▲
Greater Perth 40% ▲
Western Australia 37% ▲

Overseas born
36% ▼(-2.4%)
City of South Perth 36% ..
Greater Perth 36% ▲
Western Australia 32% ▲

Language at home other than English
20% ↔(-0.3%)
City of South Perth 22% ▲
Greater Perth 20% ▲
Western Australia 18% ▲

University attendance
8% ↔(-0.4%)
City of South Perth 10% ..
Greater Perth 5% ..
Western Australia 4% ..

University qualification
41% ▲(3.2%)
City of South Perth 38% ▲
Greater Perth 23% ▲
Western Australia 21% ▲

Trade qualification (certificate)
11% ↔(0.2%)
City of South Perth 11% ..
Greater Perth 19% ▲
Western Australia 20% ▲

Unemployment rate
6.7% ▲(2.4%)
City of South Perth 7.2% ▲
Greater Perth 8.1% ▲
Western Australia 7.8% ▲

Participation rate (population in labour force)
64% ▼(-1.2%)
City of South Perth 62% ▼
Greater Perth 64% ▼
Western Australia 63% ▼

Public transport (to work)
14% ▼(-1.8%)
City of South Perth 13% ▼
Greater Perth 10% ..
Western Australia 9% ..

Figure 45 South Perth 2016 population profile and economic profile

Table 8 Application of Subiaco journey to work mode split proportions to South Perth 2031 population

	South Perth	Population (Employed)	Population (Employed)	Population (Employed)	Difference
	2016	2016	2031 No Change to mode split	2031 Mode split Change to Subiaco 2016	
Train	0.3%	4	9	735	285
Bus	13.1%	210	417		
LRT/Ferry	0.8%	13	25		
Car, Driver	71.2%	1143	2269	1660	-610
Car, Passenger	5.1%	81	161	166	4
Bicycle	3.5%	56	111	166	54
Walked	1.5%	23	46	389	342
Other	4.2%	67	133	92	-66
Total	100%	1598	3172	3182	

8.3 Public Transport

At the moment, within the Activity Centre, there is no on-street priority for public transport. Overall use of public transport is low, including use of the existing Ferry service for commuting trips. The volume of buses, and total passengers, that pass through the main intersections in the Activity Centre would not in their own right justify on-street priority measures.

Given the projected increase in trip generation and land use in the area, not planning for public transport upgrades or increased usage in the forecast year is not practical. This is supported by the many reports and technical assessments related to the future South Perth Train Station. At present, the existing bus network generally caters for local movements to and from Curtin, Central Perth and Cannington, shown in Figure 46.

To support growth in land use, and promote ease of accessibility to and from the Activity Centre, a more regional approach to the future bus network is proposed, as shown in Figure 47. The high frequency 900 series bus routes promoted by Transperth are an indicator as to the type of bus network required to ultimately support land use. South Perth needs to be connected to other sub-regional destinations to improve competitiveness with other modes and improve access. This could be achieved through:

- 900 series connecting Perth Airport (Redcliffe Station) with UWA/QEII via South Perth and Mill Point Road.
- 900 series connection Cannington, Curtin, South Perth and ECU.
- Retaining existing local routes providing a connection for residents to opportunities in the Activity Centre.

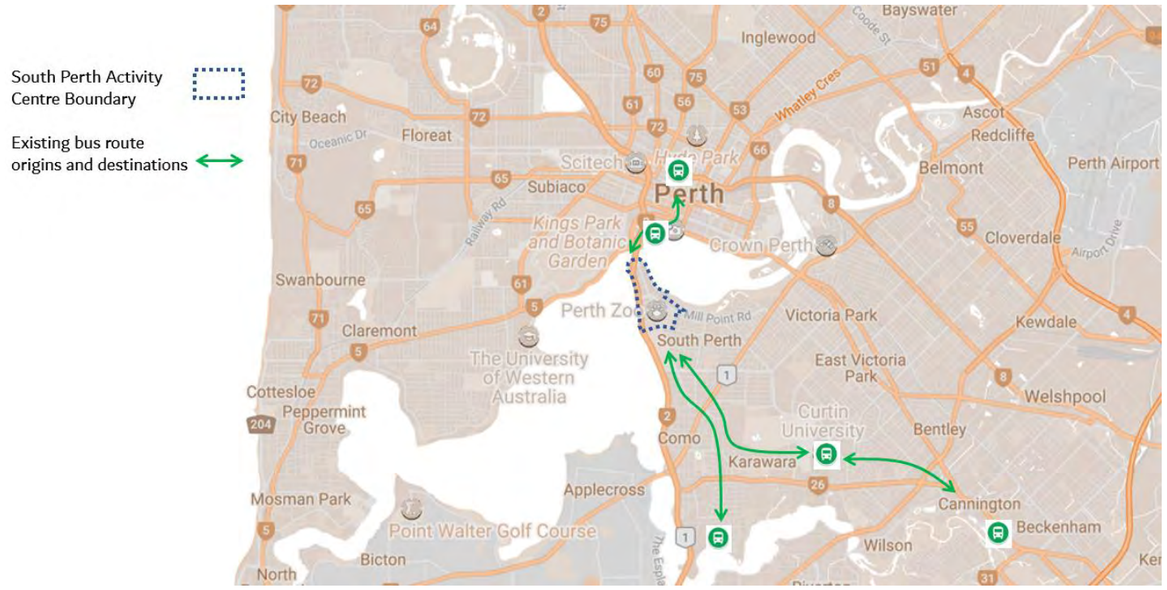

Figure 46 Existing local bus routes through Activity Centre

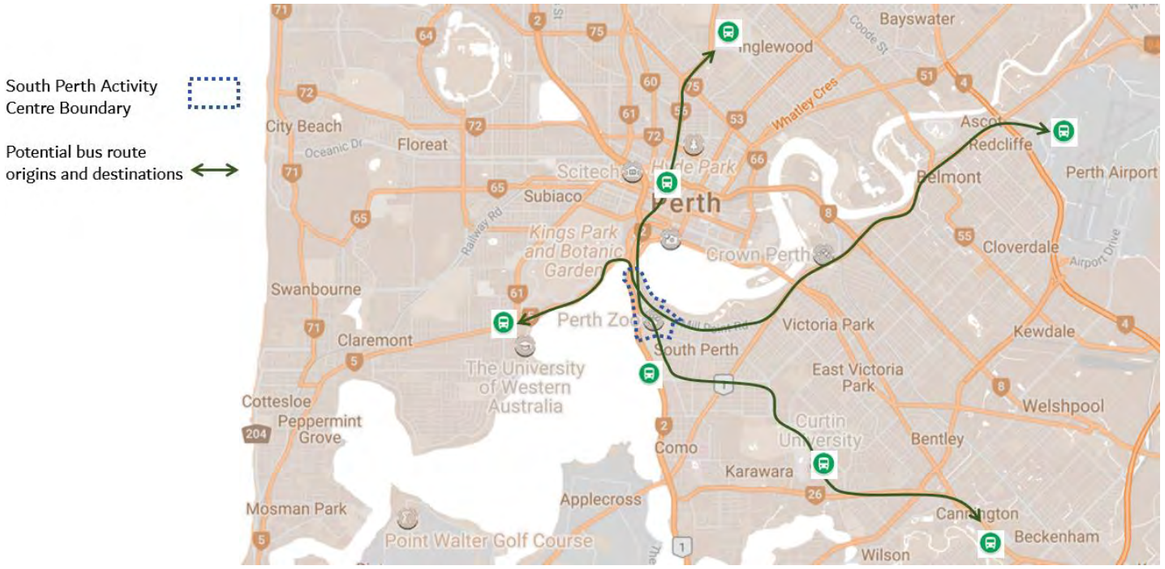

Figure 47 Future high frequency bus routes connecting South Perth Activity Centre to major activity areas

No on-street bus priority through the Activity Centre limits the potential for bus to provide a legitimate alternative for trips compared to private vehicle modes.

The intersection of greatest congestion is also one that could provide an opportunity for (peak hour) bus priority. This is illustrated in Figure 48 whereby a northbound peak hour bus lane could be provided between Stop 11866 and the Freeway on ramp. The heavy tidal flow in traffic on Labouchere Road could see a kerbside lane introduced and the southbound Labouchere Road configuration reduced to one lane with possible turning pocket into Bowman Street.

This configuration would need to take into account access into existing properties and future development on the Civic Heart site. A Bus phase could be introduced at the intersection to ensure priority.

In non-peak times, the section of bus lane between Bus Stop 11866 and south of the intersection of Mill Point Road could be used for short term parking bays to facilitate service vehicle movements and trips to businesses and residents along this section of Labouchere Road. The use of carriageway for on-street parking would also assist in redefining the use of Labouchere Road from being a freeway access road into a street that supports the overall movement network and land use in the immediate area.

Figure 48 General concept layout – bus priority along Labouchere Road

The development of South Perth Train Station has long been incorporated into strategic and land use planning within the South Perth Activity Centre.

Longer term development within the Activity Centre will support the addition of this station to the overall network, as summarised in the Business Case for South Perth Station completed in 2016. The business case establishes five major drivers:

1. Increasing number of residents in the catchment area.
2. Increasing employment in the catchment.
3. Patronage to the Perth Zoo (including special events and normal daily patronage).
4. Special event attractors (Australia Day Sky show, recreational walks/runs)
5. 'X-factors (enhanced development prospects)' .

The business case established a baseline daily boarding in 2026 of between 4,365 to 5,447 compared to previous assumed boardings of 2,100 to 2,800.

Even with the very low end projection of between 2,100 and 2,800 boardings, this is the same range that Redcliffe Station will have when the Forrestfield Airport Line opens. If the higher end projections for South Perth were to come to fruition, it would be 30% higher than boardings expected at Redcliffe Station in 2031 and be similar in boarding levels to Rockingham, Midland, Leederville and Subiaco.

With the progression of planning for the Cockburn to Thornlie Line link, the addition of South Perth Station would not result in impacts to overall operations of the network.

8.4 Pedestrian Movement and Amenity

The Activity Centre already has a well-defined pedestrian network that will see improvements through the introduction of infrastructure proposed within Connect South and longer term propositions within the Joint Bike Plan where shared use paths would provide high quality pedestrian connections.

Overall, the strategies employed to improve pedestrian accessibility must start at the principle of supporting pedestrian movements in the first instance. This strategy on the ground will only come to fruition when other modes and urban elements support pedestrian movements, not unduly impact them. The strategies include, as shown in Figure 49:

- Overall reduction in posted speed limits on street to a blanket 40km/h.
- Support for on-street tree planting programme aimed at shading pedestrian paths.
- Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre.
- Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street to include pedestrian phases.
- All intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority (Wombat Crossings being raised, marked crossings to slow vehicles but provide pedestrians with an unimpeded path along the street).
- All intersection streets along Labouchere Road within the Richardson Character Area to have Wombat crossings for pedestrian priority with the exception of Richardson Street where pedestrian phase will be incorporated.
- Implementation of the recommendations within the Connect South project report.

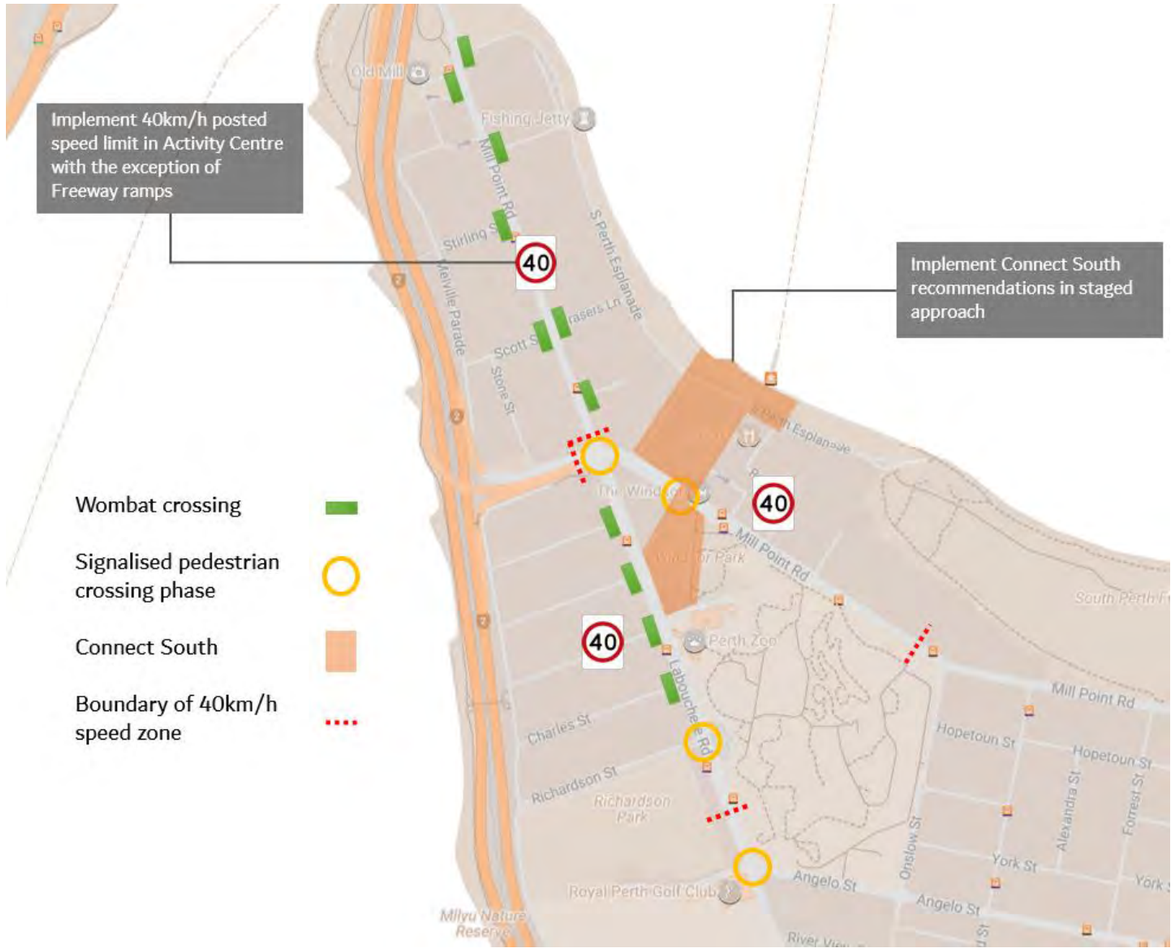

Figure 49 Pedestrian based measures within the South Perth Activity Centre

8.5 Cycling

The City of South Perth, alongside the Town of Victoria Park, have released a Joint Bike Plan for public comment. The recommendations for the on-street infrastructure are shown on Figure 50 alongside the existing cycling network. The principal changes proposed within the Activity Centre, that form the recommendations of this Movement Network Report as well, are:

- Development of a Principal Shared Path connection on the eastern side of the Freeway reserve along Melville Parade and including a grade separated connection of the Freeway ramps.
- Use of Lyall Street and Charles Street as safe active streets to connect with Mends Street (and Connect South).
- On or off-street connection along Labouchere Road to connect in with the existing routes along Angelo Street.

The development of the hard infrastructure must be complimented by additional planning measures aimed at supporting trips by bicycle. For the Activity Centre these are:

- Planning controls on End of Trip facilities that have no dispensation for not providing the required number of cycling parking facilities as per Schedule 9A.
- Connect South plans to be modified to include a dedicated, high quality End of Trip facility for cycle parking located within the heart of the development adjacent to the Ferry Terminal.
- Any redevelopment plans of Perth Zoo to include substantially improved cycle parking facilities and end of trip facilities for staff.
- Advance stop lines for cyclists on Mends Street arm of the Mill Point Road Intersection.

The City of South Perth is also presently developing plans for the construction of a new path connection along the South Perth Esplanade that accommodates the requirements for the Department of Transport Safe Active Streets program. The current proposition is to link into the Connect South proposals with a new 4m wide path linking Mill Point Close in the west through to the existing PSP east in St James Mitchell Park.

This proposal would also see the realignment of parking in the area (as set out in the Connect South project) and raised platform treatments at intersections. Mill Point Close would be limited to a single vehicle connection to reduce speeds and attractiveness of the route.

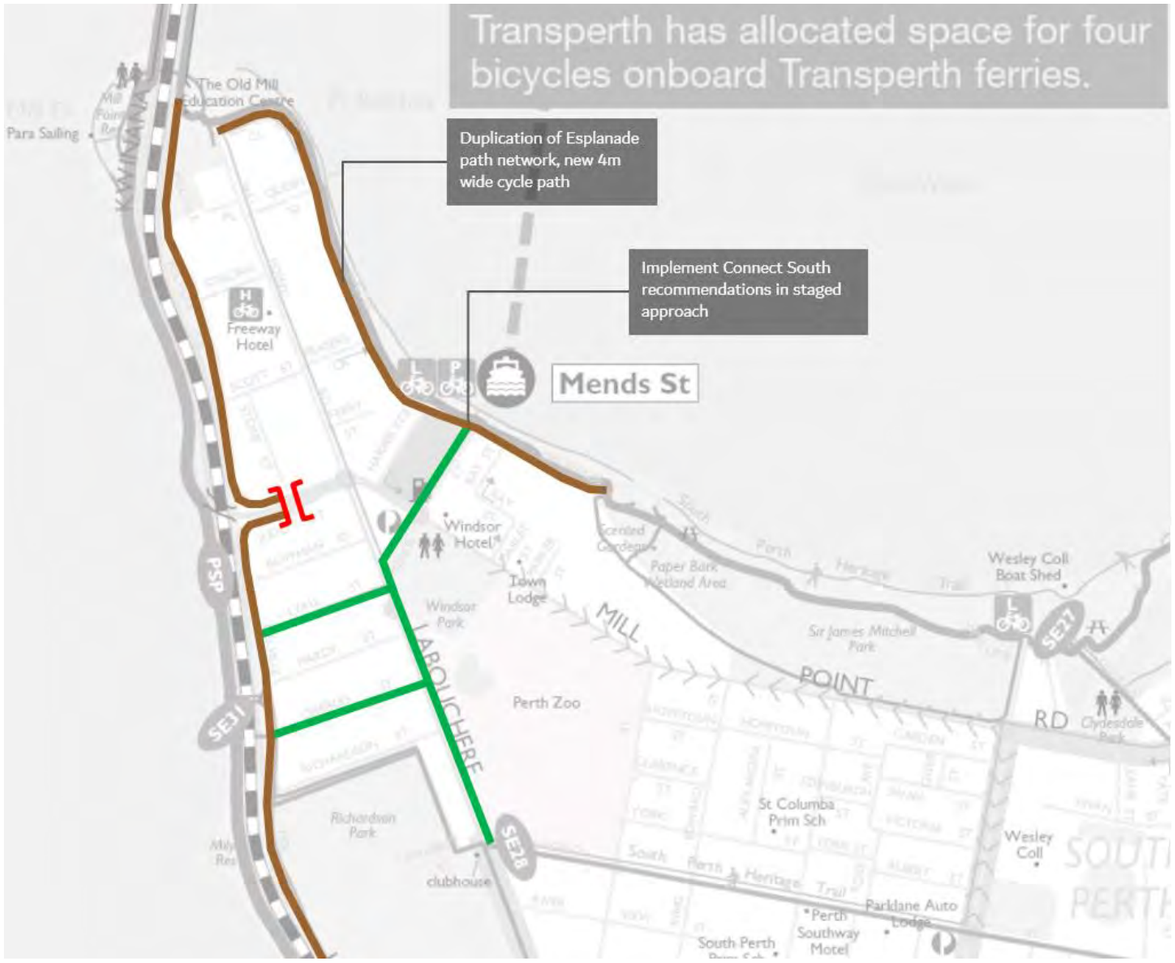

Figure 50 City of South Perth Bike Plan recommendations

8.6 Traffic and Freight

In examining the impacts of the Activity Centre plan, the general requirements of SPP 4.2 must be taken into direct consideration. It is not the role or responsibility of the Activity Centre Plan Movement Network report to consider each individual lot on its merits, moreover to set in place a framework to achieve the requirements of the State Planning Policy. The general requirements for traffic are:

"*The siting and planning of activity centres and management of traffic should:*

- *take account of the current and planned road capacity servicing the locality;*
- *ensure that vehicular access to arterial roads do not compromise their safe operation or desired transport function;*

• ensure loading/unloading facilities and associated vehicle manoeuvring areas are designed so as to optimise public safety and convenience;

- *balance regional traffic requirements for travel to, through (where appropriate) and around a centre with local traffic access needs; and*
- *sustain high levels of pedestrian movement and an external street-based retail and business environment by providing suitable traffic volumes and permeability within and around the activity centre*".

To introduce additional road network capacity in this Activity Centre would simply make it more attractive to sub-regional traffic flows moving to and from the Freeway network and entrench existing travel patterns through the Activity Centre – additional road capacity would induce more traffic. This would exacerbate existing peak hour issues and reduce the ability of the network to accommodate trips associated with future development.

The opportunity to introduce additional road network capacity, such as additional or altered Freeway interchanges, was canvassed with Main Roads WA during the Activity Centre Plan. Any proposal to introduce a new interchange or connection point on the Freeway network between Canning Bridge and Mends Street is not being contemplated and is not considered a viable proposition.

Given the concept of alternative Freeway access arrangements has been rejected by Main Roads WA, the road and street network in the Activity Centre will largely remain unchanged in form in the future, however its function will be required to change.

In addition, wider area changes to the sub-regional network will likely need to be considered by the City of South Perth to ensure that the Activity Centre street network functions.

The City of South Perth has undertaken a substantial amount of modelling in the Activity Centre over the past two years, ranging from having a wider area mesoscopic model built to assess development impacts through to detailed nano-simulation intersection modelling to inform discussions with Main Roads WA on the future configuration of the road network. No modelling was undertaken for this Activity Centre plan, moreover the outputs from the existing models were reviewed and inputs/outputs interrogated to ensure that the models themselves reflected the impacts of the Activity Centre plan.

Overall, the street network in the Activity Centre performs well and its configuration supports existing and future development as well as use by all modes. The key issues relating to traffic and freight movement are focussed on the key intersections along Mill Point Road and peak hour movements.

The approach used within the Activity Centre Plan is to provide the capacity and network form required to deliver the plan through making the sub-regional movements by private vehicle less attractive and focus on benefits to the Activity Centre itself. At present, the congestion caused during peak hours is caused by both local movements and drivers using the intersection of Mill Point Road and the Freeway ramps as an access or egress point. Although this through movement largely won't disappear, the impacts of it and attractiveness of this area as a through route can be addressed.

The overall proposals are shown on Figure 51 and include:

- Implementation of a 40km/h posted speed limit zone within the Activity Centre excepting Freeway ramps
- Introduction of bus lane along Labouchere Road and redesign of overall street to reallocate space accordingly.
- On-street off-peak short term parking along Labouchere Road and Mill Point Road to support businesses and residential uses along these roads.
- Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre.
- Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street to include pedestrian phases.

- All intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority.
- All intersection streets along Labouchere Road within the Richardson Character Area to have Wombat crossings for pedestrian priority with the exception of Richardson Street where pedestrian phase will be incorporated.
- Implementation of the recommendations within the Connect South project report.
- Redesign of Lyall Street and Charles Street to incorporate Safe Active Street principles, improve overall streetscape and maximise pedestrian amenity.
- Implementation of Safe Active Street principles along South Perth Esplanade, including raised intersections and severing Mill Point Close at the western end to limit through movements.

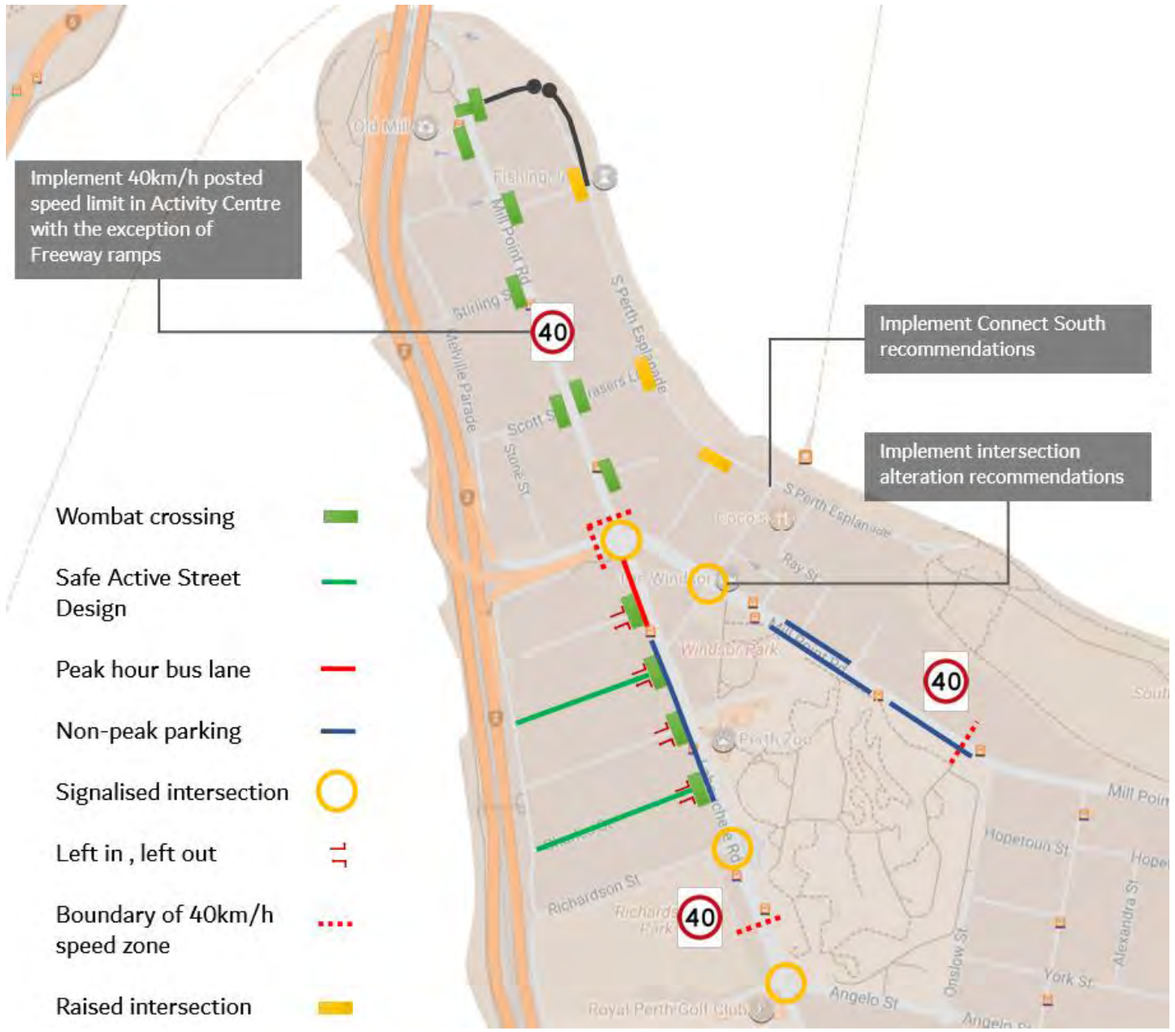

Figure 51 Overall traffic network proposals - Activity Centre

8.7 Parking – On-Street

As set out in this report, the framework around on-street parking management for the entire City and in turn for the South Perth Station Precinct area was established in the City of South Perth Parking Strategy finalised and adopted in May 2016. The Parking Management Action Plan for the Precinct (PCA1) was completed in March 2017.

Given the recent completion of both these technical assessments, their findings and recommendations for on-street parking management are taken as a given for the purposes of the Activity Centre Plan.

In addition to the recommendations of the PCA1, the Activity Centre Plan proposes the introduction of non-peak on-street parking along sections Labouchere Road and Mill Road. This is to support servicing trips and short term visits associated with businesses and residents along these roads.

These bays would have appropriate times (30 min or 2P) and only operate on weekdays out of peak periods (to reflect similar situations in Central Perth. This would provide for weekend use for visitors to the Activity Centre as well.

Similar reconfiguration of distributor level roads have been undertaken around Perth that act as precedent for reallocating street space, including Cambridge Street, Beaufort Street and Fitzgerald Street.

The proposed on-street parking configuration for the Activity Centre, including indicative sections for Labouchere Road and Mill Point Road, is shown on Figure 52.

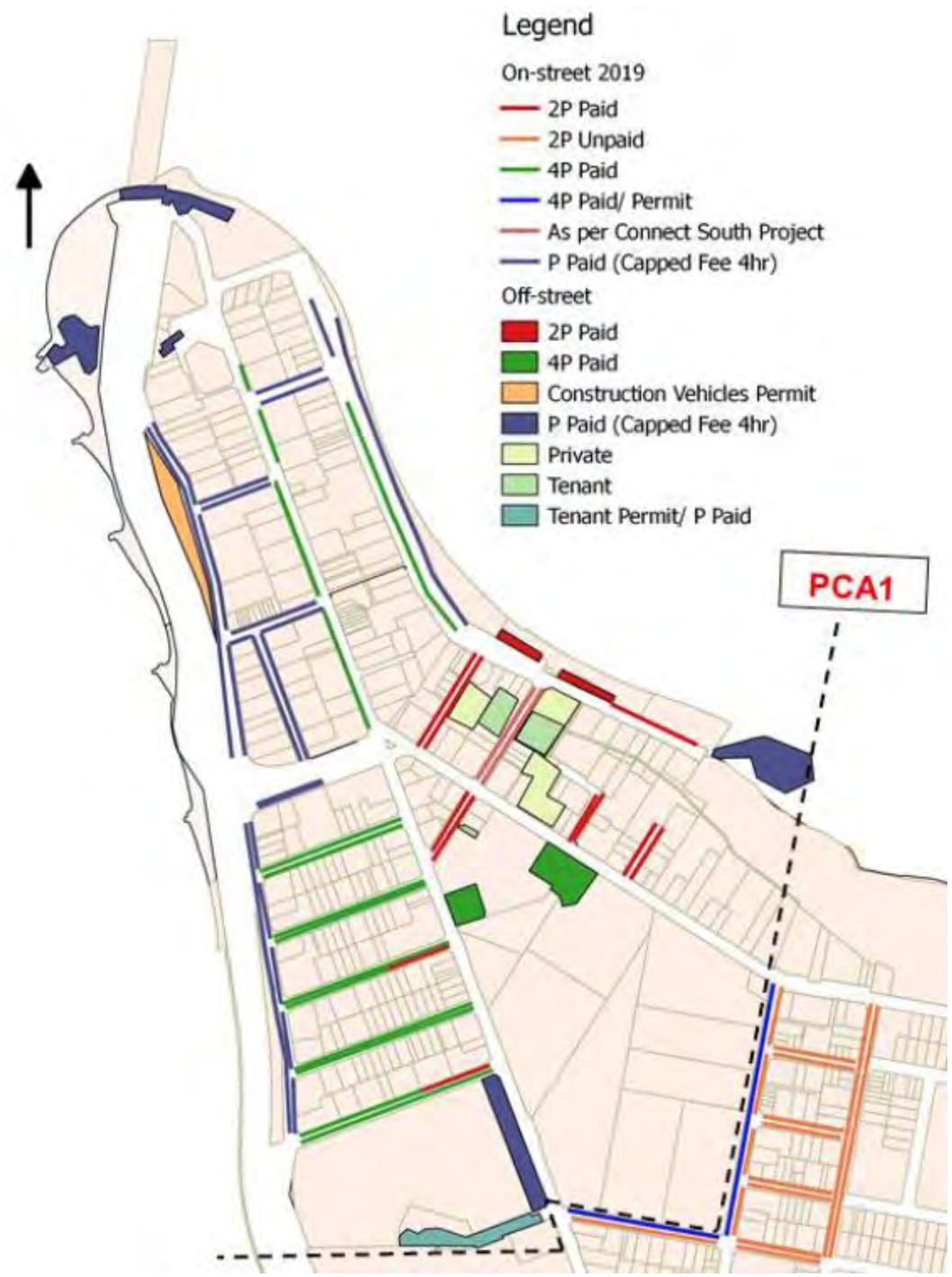

Figure 52 Parking Control Area 1 (PCA1) proposed on-street controls within Activity Centre

8.8 Parking – Off-Street

The existing off-street parking controls for development contained within Schedule 9A of the City of South Perth Town Planning Scheme No.6 for SCA1 reflect the intended strategic planning outcomes for the area that have been in place for a number of years.

The proposed off-street parking provision for development within the Activity Centre shown in Table 9 largely reflect these rates, or the impose general rates of parking based on outcomes within other similar Activity Centres. There are some general differences within the parking table shown in Table 9 and existing controls, being:

- There are fewer categories, covering headline land uses of retail, commercial and residential land uses.
- Residential land uses impose minimum and maximum rates in line with Schedule 9A and DesignWA provisions.
- There is a higher required provision of bicycle parking than presently set out in Schedule 9A. This is to support mode shift in the future and make use of new infrastructure provided within this plan and the City of South Perth Joint Bike Plan.
- There is a provision for payment of a transport contribution where a development seeks to provide parking bays beyond the minimum requirement. This contribution would be indexed and based on research baselined within the City of South Perth Parking Strategy. The required payment would be used to develop the transport infrastructure required to support non-private vehicle modes.
- Retention of End of Trip facility provision as per Schedule 9A of Town Planning Scheme No.6.
- Retention of potential for Clause 9.2 of Schedule 9A being considered relating to approval of a lesser number of parking bays subject to demonstrating impact.

For all development sites within the Activity Centre where there is a mixed land use composition, reciprocal rights for parking use and unbundling parking bays from land uses should be encouraged. Each application would need to demonstrate:

- Total parking mix proposed in comparison to current requirements
- Current on-street parking supply and use within 200m of front door of development
- Implications for trip generation and impact of development site
- Overall management plan
- Retention of visitor bays as per provision of Town Planning Scheme and Activity Centre Plan
- Provision or enhancement of End of Trip and bicycle parking facilities.

Table 9 Parking provisions Activity Centre

Land Use	Minimum Parking Rate	Maximum Parking Rate	Transport Contribution Requirement for bays over Minimum Provision	Bicycle Parking		Unit of Measure
				Employee	Visitor	
Retail	2	3	50% of the cost of one bay (rates to be determined by Council and indexed)	1 “Class 1“ per 100m^2 End of trip facilities per Schedule 9A of TPS.6	1 “Class 3“ per 100m^2	Per 100m^2 NLA
Commercial	2	3	50% of the cost of one bay (rates to be determined by Council and indexed)	1 “Class 1“ per 100m^2 End of trip facilities per Schedule 9A of TPS.6	1 “Class 3“ per 100m^2	Per 100m^2 NLA
Residential 1 bed or less	0.75* or consideration of Clause 9.2 of Schedule 9A	1	None	1 space per unit		Per Unit
Residential 2 bed or more	1	2	50% of the cost of one bay (rates to be determined by Council and indexed)	1 space per unit		Per Unit
Residential Visitors	1 bay per 6 dwellings		None, must be provided	1 space per 5 units for visitors		Per 6 dwellings
Other uses not listed	As per Town Planning Scheme No.6 and supporting policies					

8.9 Other Measures

During the course of developing the Activity Centre Plan, and predecessor planning exercises, a range of complimentary transport strategies have evolved that bear consideration as inputs in to the overall movement network. By and large, many of the strategies in the South Perth Station Precinct Transport and Access Strategy have been adopted or progressed since August 2016. Some would not be adopted given the change in policy emphasis and desired outcomes for the Activity Centre.

Other measures that are not in the bounds of the Activity Centre plans but required consideration, include:

- Retention of the intellibus trial
- Consideration of wider area car share scheme with other inner City Councils including Vincent, Victoria Park, Perth and Subiaco.
- Examination of the impact of evolving technologies in autonomous vehicles.
- Support for expansion of the local ferry network for either private or public operators that opens us access for the Activity Centre to wider Perth.
- Reintroduction of a travel demand management programme in South Perth that addresses travel to and from the Activity Centre as well as those trips generated by the Activity Centre.
- Provision for user pays parking station at Perth Zoo associated only with that facility but with the inclusion of high quality EoT facilities and sleeved development rights.

The overall transport elements set out in this Movement Network Report are set out on Figure 53.

8.10 Indicator Measurements

The success of the movement network measures proposed in the Activity Centre Plan are based on the ability of strategies and statutory controls being able to support the intent of SPP 4.2 and the objectives of that policy.

The relationship between measures proposed and the performance indicators is set out in the following pages.

- Public Transport – section 8.10.1
- Walking and Cycling – section 8.10.2
- Traffic and Freight – section 8.10.3
- Parking – section 8.10.4.

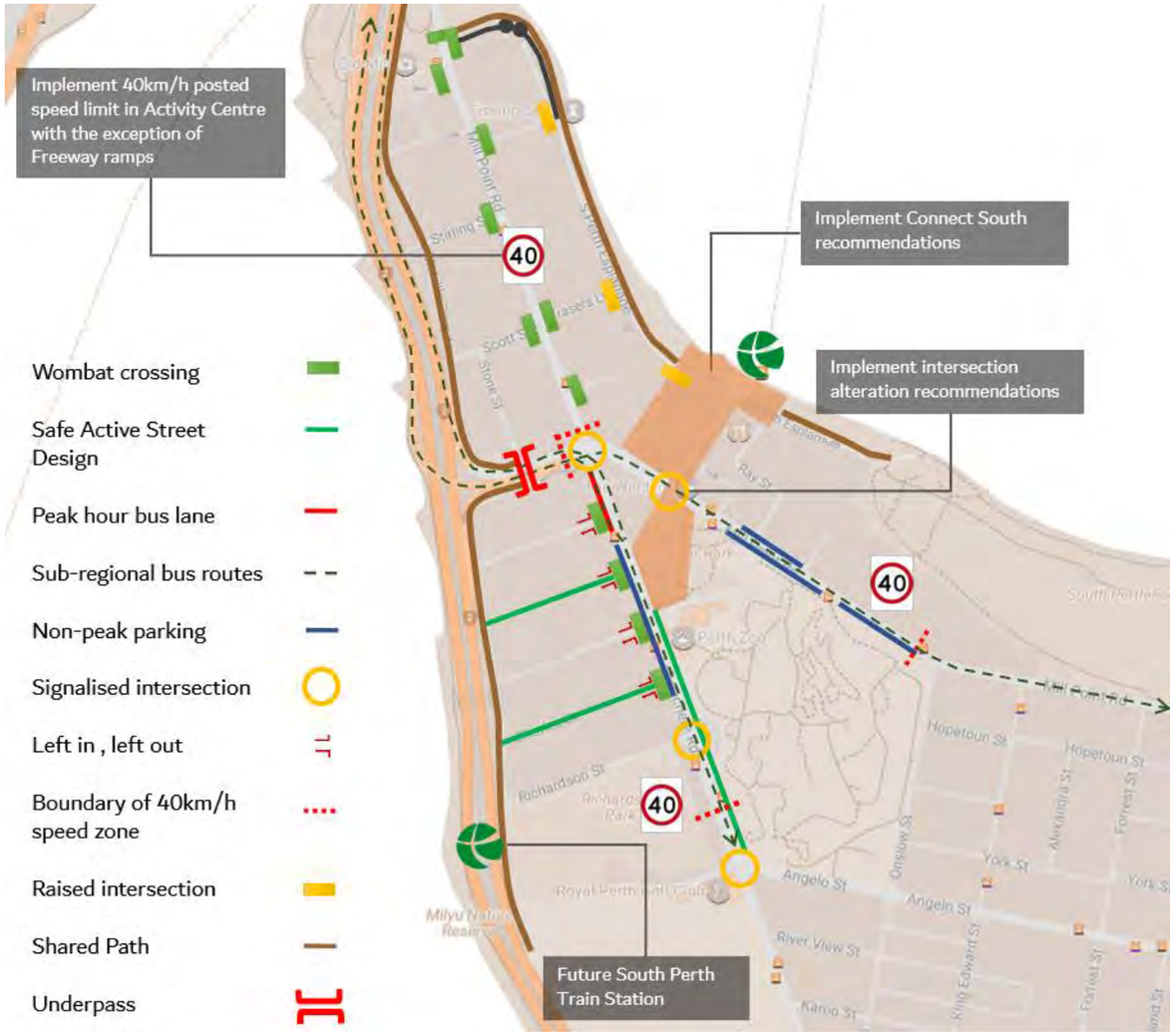

Figure 53 Transport measures within South Perth Activity Centre

8.10.1 Indicator measures – Public Transport

Measure	Element	Indicator	How indicator is achieved
Peak hour bus lanes on Labouchere Rd	Public Transport Infrastructure	Prioritisation of public transport	Supports prioritisation of buses in AM peak hour, increases attractiveness of bus travel and modal shift.
Introduction of high frequency bus services connecting South Perth to other Activity Centres	Public Transport Infrastructure	Prioritisation of public transport	Supports modal shift, reduces travel time between Activity Centres, maximises benefit of on-street bus lanes, makes South Perth more accessible and increase potential for area to be supported by Urban Rail in future.
Support for expansion of ferry network, either pubic or private	Public Transport Infrastructure	Prioritisation of public transport	Makes South Perth more accessible, increases economic activity, supports use of public transport and consolidates South Perth's unique location as a Ferry hub in Perth.
Intellibus retention	Public Transport Infrastructure	Prioritisation of public transport	Retains unique trial of bus, potential future application in wider area.
Continued support for South Perth Train Station	Public Transport Infrastructure	Prioritisation of public transport	Provides high quality, fast and high capacity public transport service that supports full build out of Activity Centre.

8.10.2 Indicator measures – Walking and Cycling

Measure	Element	Indicator	How indicator is achieved
Reduction in posted speed limit throughout Activity Centre to 40km/h	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle.
Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports movement of pedestrians over busiest intersections and attractiveness to visitors of the zoo of non private vehicle modes. Supports Connect South proposals.
Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street including pedestrian phases	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Reduces impact of through vehicle traffic by making the route to and from the freeway longer in time by average. Supports movement of pedestrians across Labouchere Road between Zoo and existing parks and car parking areas.
All intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Prioritises pedestrian movement without restricting vehicles. Put clear emphasis on safety outcomes rather than vehicle speeds being the most important aspect of street network.
All intersection streets along Labouchere Road within the Richardson Character Area to have Wombat crossings for pedestrian priority with the exception of Richardson Street	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Prioritises pedestrian movement without restricting vehicles. Put clear emphasis on safety outcomes rather than vehicle speeds being the most important aspect of street network.

Measure	Element	Indicator	How indicator is achieved
Implement recommendations of Joint Bike Plan when finalised	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports travel by bicycle and makes Activity Centre safer to move around. Assists in achieving modal shift away from private vehicle use.
Planning controls on End of Trip facilities that have no dispensation for not providing the required number of cycling parking facilities as per Schedule 9A	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides end of trip facilities. Supports use of bicycle for commuting trips and maximises benefit from new cycling infrastructure.
Connect South plans to be modified to include a dedicated, high quality End of Trip facility for cycle parking located within the heart of the development adjacent to the Ferry Terminal	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides end of trip facilities. Supports use of bicycle for commuting and recreational trips and maximises benefit from new cycling infrastructure.
Any redevelopment plans of Perth Zoo to include substantially improved cycle parking facilities and end of trip facilities for staff	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides end of trip facilities. Supports use of bicycle for commuting trips and maximises benefit from new cycling infrastructure.
Advance stop lines for cyclists on Mends Street arm of the Mill Point Road Intersection	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports travel by bicycle and makes Activity Centre safer to move around.
Duplication of South Perth Esplanade Path	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports travel by bicycle and makes Activity Centre safer to move around. Assists in achieving modal shift away from private vehicle use. Supports development of Connect South and community focal point.

8.10.3 Indicator measures – Traffic Assessment

Measure	Element	Indicator	How indicator is achieved
Peak hour bus lanes on Labouchere Rd	Traffic Assessment	Improved access by all modes, including freight vehicles	Supports travel by bicycle and makes Activity Centre safer to move around. Assists in achieving modal shift away from private vehicle use.
Reduction in posted speed limit throughout Activity Centre to 40km/h	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle. Doesn't impact on travel times by vehicle, nor restrict access.
On-street off-peak short term parking along Labouchere Road and Mill Point Road	Traffic Assessment	Improved access by all modes, including freight vehicles	Support businesses and residential uses along these roads., provides more service bays which the PCA1 recommends but doesn't provide.
Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre	Traffic Assessment	Improved access by all modes, including freight vehicles	Supports movement of pedestrians over busiest intersections and attractiveness to visitors of the zoo of non private vehicle modes. Supports Connect South proposals. No impact on access for private or service vehicles.
Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street including pedestrian phases	Traffic Assessment	Improved access by all modes, including freight vehicles	Reduces impact of through vehicle traffic by making the route to and from the freeway longer in time by average. Supports movement of pedestrians across Labouchere Road between Zoo and existing parks and car parking areas. Supports movement of vehicles to development sites and Richardson character area.
Intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority	Traffic Assessment	Improved access by all modes, including freight vehicles	Prioritises pedestrian movement without restricting vehicles. Put clear emphasis on safety outcomes rather than vehicle speeds being the most important aspect of street network.
Reconfiguration of streets in Richardson character area to provide left in-left out movements, supporting the need for traffic signals at Richardson Street	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides distinct entry and exit points to character area and supports local trips over sub-regional traffic movement.
Redesign of Lyall Street and Charles Street to incorporate Safe Active Street principles, improve overall streetscape and maximise pedestrian amenity	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle. Doesn't impact on travel times by vehicle, nor restrict access.
Implementation of Safe Active Street principles along South Perth Esplanade, including raised intersections and severing Mill Point Close at the western end to limit through movements	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle. Doesn't impact on travel times by vehicle, nor restrict access.

8.10.4 Indicator measures – Centre Parking Policy

Measure	Element	Indicator	How indicator is achieved
Implementation of Parking Management Action Plan for the Precinct (PCA1)	Centre Parking Policy	Provides for upper limits and common use of car parking	Supports management of parking based on assessment of supply and demand. Places appropriate management controls on available parking.
On-street off-peak short term parking along Labouchere Road and Mill Point Road	Centre Parking Policy	Provides for upper limits and common use of car parking	Support businesses and residential uses along these roads., provides more service bays which the PCA1 recommends but doesn't provide.
Revised off-street parking provision for development within the Activity Centre	Centre Parking Policy	Provides for upper limits and common use of car parking	Supports use of upper limits on parking provision.
Higher provision of bicycle parking than presently set out in Schedule 9A	Centre Parking Policy	Provides for upper limits and common use of car parking	Support mode shift in the future and maximise use of new infrastructure provided.
Payment of a transport contribution where a development seeks to provide parking bays beyond the minimum requirement	Centre Parking Policy	Provides for upper limits and common use of car parking	Supports lower provision of parking associated with land uses without impacting visitor bays. Establishes fund to be able to implement other measures in Activity Centre Plan. Focuses user pays on the vehicle movements that do impact local streets.
In mixed land use composition, reciprocal rights for parking use and unbundling parking bays from land uses is encouraged.	Centre Parking Policy	Provides for upper limits and common use of car parking	Maximises use of parking in Activity Centre and reduces potential over provision.

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