

Appendix B – Neighbourhood Profiles and Analysis

May 2023



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1. Neighbourhood profiles and analysis

For the purposes of the Local Planning Strategy, Perth city has been split in to six ‘neighbourhoods’. The primary purpose of doing so was to allow for an analysis of the city at a fine grain and more detailed level – to ensure that strategies and actions are tailored to the unique character and spatial patterns of an area. Kings Park has not been investigated as a neighbourhood – as it is a single land-use reserved for ‘Parks and Recreation’ under the Metropolitan Region Scheme (MRS). However, the role Kings Park plays in contributing to the overall amenity of Perth city – and the potential strengths it offers to nearby neighbourhoods – has been considered when investigating Perth city’s neighbourhoods. These neighbourhoods are shown in **Figure 1**.

Figure 1 - Perth city neighbourhoods



1.1. Central Perth

1.1.1. Central Perth neighbourhood profile

The Central Perth (refer to **Figure 2**) is the heart of Perth city in terms of activity, representing not only the centre of the city but also Greater Perth and the State. Central Perth is the busiest day-time area with the highest economic output, development intensity and pedestrian footfall (Intermethod, 2018). It is also the centre of Greater Perth’s railway, bus and freeway networks.

Neighbourhood activity is divided between three main land uses:

- The retail precinct of the Hay Street and Murray Street malls;
- The office core along St Georges Terrace; and
- The government precinct along the eastern end of St Georges Terrace towards Adelaide Terrace.

The neighbourhood is the focus of office and retail activity; however, land use mix has continued to diversify.

Central Perth is rich in history and built heritage. The land and waters in and around central Boorlo or Burrell (Perth) are culturally significant to the traditional owners, the Whadjuk Nyoongar people. Perth is also known as Beerit, meaning “pathways”, due to its importance for meetings, travel and trade for the Whadjuk Nyoongar people for at least 35,000 years. Pockets of gold-rush-era buildings, along with a historic street grid, also create a strong sense of place.

The neighbourhood has a unique river and parkland setting. The Swan River/Derbarl Yerrigan and the foreshore to the south and the Mount Eliza escarpment and Kings Park/Kaarta Koombato the west form the setting for an iconic city skyline with the tallest buildings in Greater Perth.

Figure 2 - Central Perth neighbourhood location plan



1.1.1.1. Land use

As the engine room of Perth city, Central Perth neighbourhood is the busiest day-time area, with the highest economic output (Intermethod, 2018).

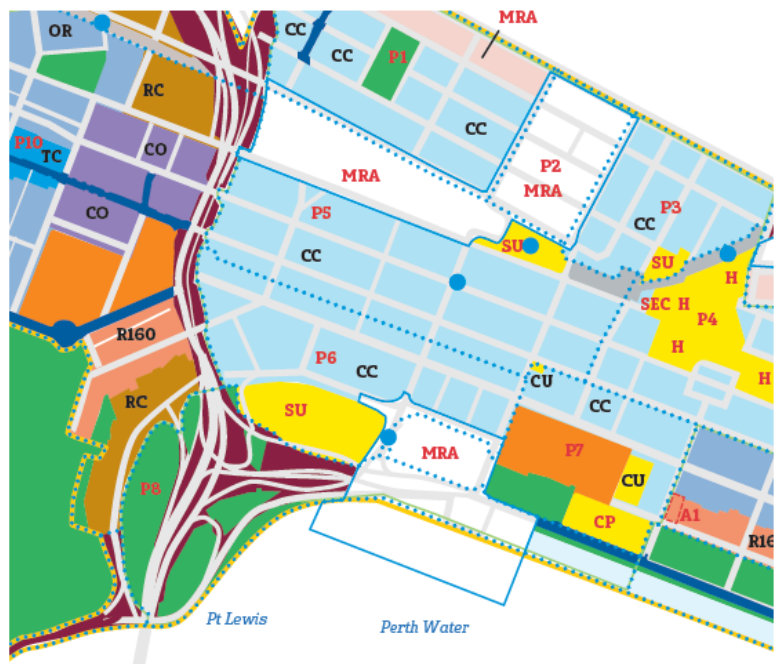
The neighbourhood is predominantly identified as ‘City Centre’ under CPS2, which allows a range of uses – recognising Central Perth’s role as WA’s primary business, commercial, civic, cultural and entertainment centre, as well as a tourist destination (refer to **Figure 3**). The portion of the neighbourhood to the west of Mitchell Freeway comprises of ‘Residential – R160’ and ‘Residential/Commercial’ areas. The south-eastern edge of the neighbourhood comprises ‘Office/Residential’ along Adelaide Terrace and ‘Residential – R160’ along Terrace Road. Areas on the periphery of the neighbourhood are reserved under the MRS for ‘Parks and Recreation’ (Swan River foreshore), ‘Public Purpose’ (Royal Perth Hospital, Convention Centre, Perth Train Station and parking) or designated as Development WA redevelopment areas (Perth City Link in the north and Elizabeth Quay in the south).

The diversity of uses and experiences in the Central Perth neighbourhood make it a vibrant capital city environment, particularly during the day. Land-use mix within Central Perth has continued to diversify in recent years, with diverse business sectors emerging – such as small bars and restaurants, shared working spaces, entertainment and event venues. However, activity in the majority of the central area of Perth City continues to peak in response to traditional 9am–5pm working week business hours. Exceptions within this area are the east end of Murray and Hay Streets.

Figure 3 - City Planning Scheme No. 2 - Central Perth neighbourhood

Legend

Scheme Area Boundary		Metropolitan Region Scheme Reserves	
Precinct Boundary		Parks & Recreation	
Precinct Number	P7	Railways	
City Centre Boundary		Civic & Cultural	
Metropolitan Redevelopment Authority Area	MRA	Waterways	
City Of Perth		Public Purposes	
Public Purposes		• Hospital	H
• Civic Use	CU	• Car Park	CP
City Of Perth Scheme Use Areas		• SECWA	SEC
City Centre	CC	• Special Uses	SU
Town Centre	TC	Roads	
Residential	R60	• Primary Regional Roads	
Office/Residential	OR	• Other Regional Roads	
Residential/Commercial	RC	City Centre Precincts	
Commercial	CO	P1 - Northbridge	
Other		P2 - Cultural Centre	
Additional Uses	AU	P3 - Stirling	
Normalised		P4 - Victoria	
Redevelopment Area		P5 - Cityplace	
Note:		P6 - St Georges	
The Department of Planning should be consulted for full information on the actual land requirements for all Metropolitan Region Scheme Reserves		P7 - Civic	
		P8 - Foreshore	
		Precincts	
		P10 - West Perth	



The primary office area of Central Perth is centre of commerce and administration for Greater Perth and the State. This area is dominated by office development, however a mix of active uses such as food and beverage, cultural activities and local retail have emerged, particularly at street level.

The majority of Perth city’s retail is also concentrated within Central Perth, primarily within the retail core along Hay and Murray Street malls. Central Perth’s open-air mall experience and the diversity of retail choices (including flagship stores) in the city give it competitive retail edge.

1.1.1.2. Population and demographics

Significant efforts have been made in recent years to encourage residential development within Central Perth.

The Central Perth population increased by 2,704 people between 2006 and 2016, according to Census data (refer **Table 1**) (Urbis, 2018). This population accounts for approximately 21% of Perth city's total estimated resident population. The largest growth has occurred within the 15–29-year age bracket, which accounts for roughly 34% of the overall population in Central Perth in 2016 (Urbis, 2018).

Table 1 - Central Perth resident and housing characteristics (Urbis, 2018)

Indicator	Central Perth	City of Perth
Resident characteristics		
Estimated resident population	5,672	26,950
Population growth (2006-16)	2,704	10,987
Median age	32	31
High income households	46.1%	43.3%
Low income households	26.4%	28.7%
Australia-born	33.1%	35.5%
Attending tertiary education	9.8%	17.8%

1.1.1.3. Dwelling characteristics

Of the 2,796 private dwellings in the neighbourhood, over 90% were considered 'high density', as categorised under the Australian Bureau of Statistics, being flats or apartments of three storeys or more. The relatively large proportion of high-density dwellings can be attributed to CPS2 and the bonus plot-ratio bonus awarded to high-density residential developments, as well as the high cost of land in the Central Perth area.

Table 2 - Central Perth dwelling characteristics (Urbis, 2018)

Indicator	Central Perth	City of Perth
Dwelling characteristics		
Total occupied dwellings	2,596	12,282
Average household size	1.8	1.9
Dwelling density (dwellings per ha)	28	31
Owner occupier households	13.6%	15.4%
Social housing	3.2%	5.3%
Households with children	15.5%	16.5%
Three-bedroom households	13%	21%
Median rent (2017)	\$460	\$425
Median dwelling price (2017)	\$479,750	\$460,000

1.1.1.4. Built environment

The varying built forms across the Central Perth neighbourhood can be attributed to the primary regional role the central business district plays in the Central Sub-Region and wider Metropolitan Region. The predominant built form of the Central Perth neighbourhood consists of medium to tall office towers of varying ages, quality and height. Tall office towers are focused along St Georges Terrace, where they are located on the highest part of the ridge to take advantage of the views to the Swan River and Kings Park. Office tower buildings generally form nil

setbacks to the street – with large open-ground floor foyers, sometimes with small food and beverage tenancies, providing a level of activity in these spaces during business hours.

Significant landholdings reserved for public purpose also exist across the neighbourhood including:

- The Supreme Court of Western Australia;
- The Royal Perth Hospital;
- The Perth Arena;
- The Perth Exhibition and Convention Centre;
- Elizabeth Quay busport and train station; and
- Council and Government House and grounds.

These government and public-purpose buildings and complexes are generally of a large scale – designed for uses such as government administration, regional health services, mass transit or large-scale exhibitions and conventions.

Other predominant aspects of the Central Perth neighbourhood’s built form include: multi-storey retail and large-scale pedestrian malls of Hay and Murray Streets; small-scale arcades and laneways; and plaza-style urban and green spaces such as Forrest Place, Cathedral Square and Central Park.

The Central Perth neighbourhood is also one of the oldest parts of the city, with a number of historical buildings, heritage areas and landmarks. Several streets within the neighbourhood are historically significant, containing historical buildings that have been adapted and reused (such as King and Queen Streets).

The residential neighbourhood around Mount Street on the northern edge of Kings Park and Mt Eliza consist of multi-storey residential apartment buildings that have been designed to capture the views across the city, the Swan River and Kings Park. Medium-scale commercial buildings and short-term accommodation apartment complexes extend along Mounts Bay Road from the central city to the base of Mt Eliza and Kings Park, including the Mount Hospital.

1.1.1.5. Character

There are many historic buildings, heritage areas and landmarks within Central Perth. Several streets such as King Street, Queen Street and Barrack Street provide a unique streetscape setting with the lower scale Federation Free Classical style buildings - creating an inviting and unique neighbourhood. There is also standalone heritage listed buildings that, when maintained and refurbished, can act as landmarks and attractions. An example of this is the State Treasury Building which has been restored and sits proud on the corner of Barrack Street and St Georges Terrace.

The character of the Hay and Murray Street Malls is unique to Perth and provides an opportunity for open-air shopping - a legacy of the popular late 19th and early 20th Century development that featured arcades, coffee palaces, theatres, picture gardens and hotels. The character of the Hay and Murray Street Malls draws through to the eastern end of Central Perth along Barrack Street. There are pockets of fine grain development and urban grit which contribute to the character of the area. The Hay and Murray Street Malls also include many heritage buildings. The upper levels of these buildings have been retained with modern shop fronts being incorporated on the ground levels.

As outlined in the Local Profile Analysis, key character areas have been identified across Perth city. Four of these character areas are within Central Perth and are illustrated in **Figure 4** and described in **Table 3**.

Figure 4 - Central Perth character areas

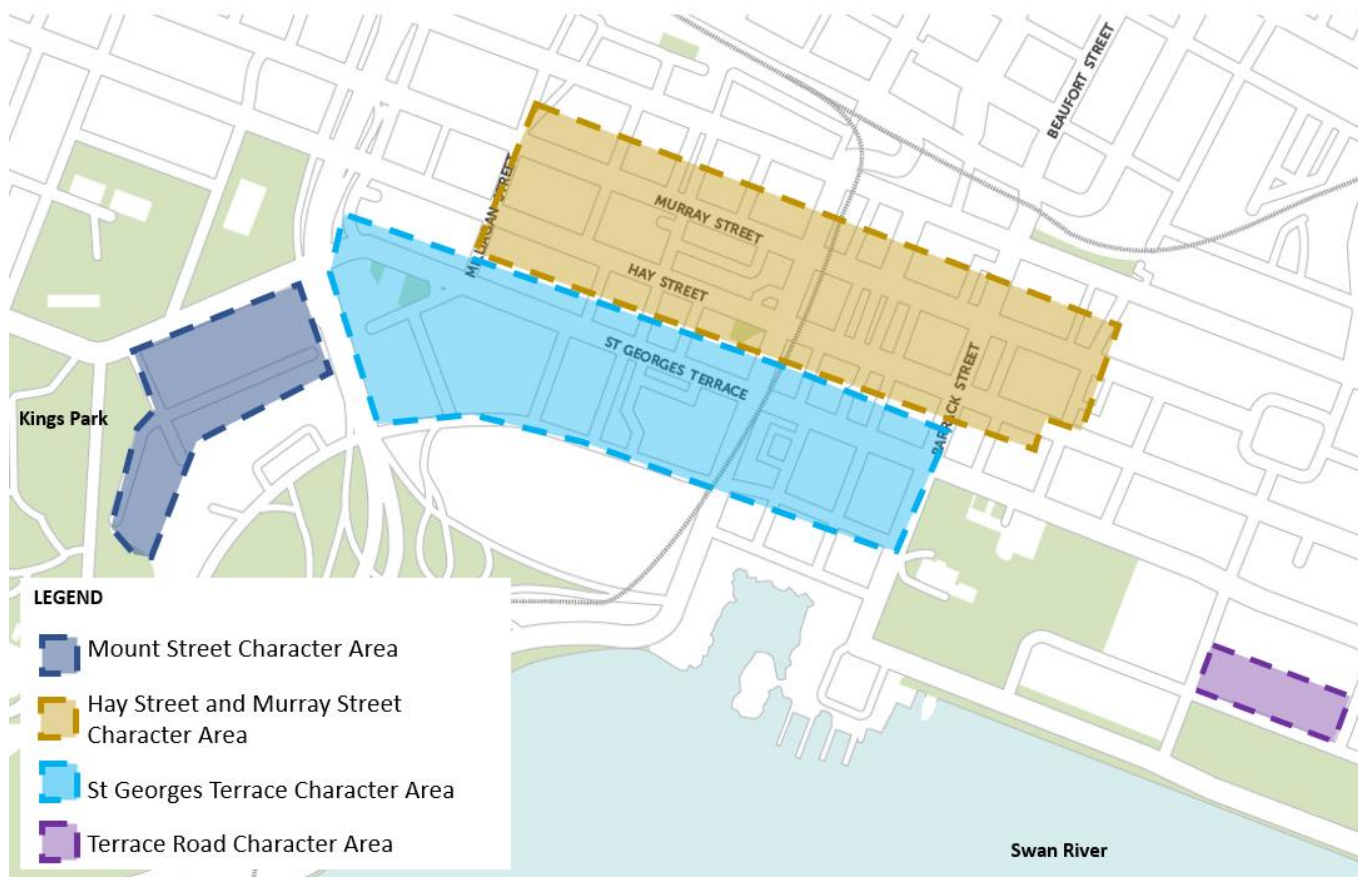


Table 3 - Central Perth character areas

Character Area	Description
Hay and Murray Street Character Area	<ul style="list-style-type: none"> • Fine grained rhythm of development with narrow 2 to 3 storey facades built to the street, transparent shopfronts and awnings over the footpath. • Frequent pedestrian connections are provided within the street blocks.
St Georges Terrace Character Area	<ul style="list-style-type: none"> • An area of landmark tower developments focused along an east west boulevard, that are predominant in the city skyline and create an atmosphere of prosperity and status. • Frequent pedestrian connections are provided within the street blocks.
Mount Street Character Area	<ul style="list-style-type: none"> • Tree lined residential streets with no through traffic that accommodate narrow, medium rise buildings within a landscaped setting. The gaps between the buildings allow views from the public realm to the distance, and often to the river.
Terrace Road Character Area	<ul style="list-style-type: none"> • A stepped profile of buildings that provide a transition of scale from Langley Park towards the north and respond to the change in topography. (Note: the majority of this area falls within East Perth.)

1.1.1.6. Local movement network

Whilst Central Perth is considered to have a good walk and cycle street grid, the neighbourhood continues to face problems with severance and pedestrian amenity due to major transport infrastructure and through traffic. For example, the southern boundary of the neighbourhood is bordered by the Swan River but currently underutilised due to severance caused by current road infrastructure. Over the last five years work has been undertaken to overcome this severance, notably the development of Elizabeth Quay and redevelopment of Barrack Square (Intermethod, 2018). North-south linkages have also been improved through Perth City Link and the recent completion of Yagan Square (a critical pedestrian link between Central Perth and Northbridge).

1.1.1.7. Culture

The Central Perth neighbourhood includes most of Perth city's prominent cultural and event spaces and iconic landmarks – including Forrest Place, Perth Arena, Perth Concert Hall, His Majesty's Theatre, Perth Town Hall and Elizabeth Quay. Cathedral Square and Supreme Court Gardens have recently been revamped to accommodate more frequent events.

1.1.1.8. Open space

The Supreme Court Gardens and Stirling Gardens are two prominent public open space areas within Central Perth – with an area totalling approximately 3.9ha. The western area of Langley Park is also located within Central Perth, and straddles the East Perth neighbourhood boundary. However, accessibility to public green space within the majority of Central Perth is generally limited. There are a number of important public open spaces on private land, such as Central Park and Brookfield Place.

1.1.2. Neighbourhood analysis

Strengths	Weaknesses	Opportunities	Threats
<p>Central Business District: Whilst residential land-use has significantly increased over the past decade, office and retail land-use still dominate. Office remains the highest and best use.</p> <p>Activation: This neighbourhood has the highest day-time activation levels. It is second to Northbridge for high weekend night-time activity (particularly the west end). Highest pedestrian counts are along William Street between Hay Street and Murray Street mall.</p> <p>Public realm: Quality of the public realm within the malls, Yagan Square and Elizabeth Quay are high. They are attractive and functional public spaces.</p> <p>Planning controls: Planning controls allow intense development, with high base-plot ratios and bonuses widely available for residential development. Central Perth also includes two major Development WA redevelopment areas that apply more discretion to development outcomes than local council.</p> <p>Connectivity: Centre for metropolitan transport including freeways and rail. Central Perth also includes two major bus ports and is easily accessible from the Mitchell Freeway and Mounts Bay Road.</p> <p>Government investment: Central Perth has been a focal point for investment in amenities, infrastructure and redevelopment precincts, with close to \$2 billion invested in Elizabeth Quay (\$440 million), Perth City Link (\$1.4 billion) and street and public space improvements. In addition, government has supported a range of events to activate Elizabeth Quay and attract conventions, conferences and performances to the convention centre and Perth Arena.</p> <p>Cultural and amenity attractions: Central Perth has an array of natural and built attractions for recreation and entertainment, including Kings Park, Forrest Place, His Majesty’s Theatre, Yagan Square, Central Park, Elizabeth Quay and Perth Arena. Cinemas are planned to be opened within two major redevelopments in Central Perth, which will further add to population amenities.</p> <p>Land-use mix: The neighbourhood is the focus area of office, retail and commercial activity in Greater Perth. Precincts such as Brookfield Plaza, Wolf Lane, Shafto Lane, Elizabeth Quay, Yagan Square, Kings Square, Raine Square, Treasury Building and 140 William support numerous convenience food precincts and stand-alone restaurants and bars.</p> <p>Existing scale of development: Central Perth is home to Perth’s tallest buildings, including Brookfield Place, Central Park Tower and QV1.</p> <p>Live local: Residents have access to the Royal Perth Hospital, Mount Private Hospital and 24-hour GP services, though connectivity to these services varies. Central Perth is home to three full-line supermarkets.</p>	<p>Residential: The lack of a distinct residential precinct with safe and high amenity, walkable streets, and parks undermines the marketability of apartments.</p> <p>Pedestrian amenity: High number of roads that prioritise vehicle movements over pedestrians. Poor pedestrian connectivity in some areas, limited wayfinding and long dull distances of travel, resulting in significant loss of pedestrians.</p> <p>Green space: The northern area of the neighbourhood has poor accessibility to green space or areas of respite.</p> <p>Live local: Limited number of community facilities and family friendly facilities.</p> <p>Built form/streetscape: Contemporary office buildings have, in many cases, resulted in poor streetscape integration and unattractive facades. Areas dominated by larger floorplates result in fewer reference points for visitors and pedestrians. There are many vacant buildings, including the upper floors of the Hay Street and Murray Street malls.</p> <p>Severance: Caused by key regional infrastructure e.g. rail and freeway reducing links to neighbouring areas.</p> <p>Critical mass: There are insufficient people in Central Perth outside core office hours to support economic activity and vibrancy.</p> <p>Night-time and weekend activity: Low levels of activity at night time and on weekends results in a lack of customers for businesses and contributes to streets and public spaces not feeling safe.</p> <p>Parliament House Precinct Policy: this policy includes building height restrictions in some areas on the west side of Central Perth. However, the policy has never been reviewed since being endorsed in 1983.</p>	<p>Connectivity: Proximity to Swan River and improved accessibility to river edge via Elizabeth Quay offers the ability to leverage river connections.</p> <p>Vitality: Potential to build upon emerging nightlife culture to improve afterhours activity.</p> <p>Residential: The existing large-scale office buildings can support the acceptance of large scale residential developments.</p> <p>Conversions: The cost to convert office to alternative uses, including residential or special use, is often prohibitive. However, older and under-developed sites have redevelopment potential.</p> <p>METRONET: Improved rail connectivity will have a positive impact on accessibility.</p> <p>Redevelopment precincts: Kings Square and Elizabeth Quay will contribute a significant number of future residents. Raine Square and Forrest Chase redevelopments will improve the retail offer to future residents.</p> <p>Pedestrian flows: Identified in Movement and Place Study e.g. train patrons channelled through pedestrian walkway to Central Train Station.</p> <p>Development capacity: the plot ratios provided in the current scheme could be increased to stimulate new development opportunities.</p> <p>Unique character: there are several areas with distinct built form which creates a unique character specific to Central Perth.</p> <p>Mclver Train Station: currently an underutilised area with the potential to be transformed into a vibrant transit orientated precinct servicing the east end of Central Perth.</p> <p>Increased student population: the demand for centrally located student housing will increase with the relocation of Edith Cowan University to Central Perth.</p>	<p>Maintaining office primacy: The decentralisation of Government departments out of Perth city and the growth sub-regional activity centres will have significant impact on the prominence the capital city activity centre.</p> <p>Continued loss of fine-grain floorplates: Reduces future opportunities for adaptation to remain resilient.</p> <p>Site availability: Due to the strength of the office market, residential development may continue to be a costlier option, and much built form is uneconomical to convert to residential. Strata arrangements also form a barrier to any near-term redevelopment.</p> <p>Dilution: New attractions such as Yagan Square and Elizabeth Quay draw visitors but dilute the critical mass over a larger area of the city as it transitions.</p> <p>Loss of mall/arcade permeability: Due to large floorplate anchor tenants.</p> <p>Climate change: Due to the foreshore location of this neighbourhood, planning should address climate change and the potential impact of a 100-year flood on the area.</p> <p>Maintaining retail primacy: There are significant retail and B, C and D grade office vacancies in the city. COVID-19 has compounded this situation. It may accelerate a cultural shift toward online retail and virtual working options, reducing demand for CBD floorspace in the long-term.</p> <p>Retail and office vacancy: There are significant retail and B, C and D grade office vacancies in the city. COVID-19 has compounded this situation. It may accelerate a cultural shift toward online retail and virtual working options, reducing demand for CBD floorspace in the long-term.</p> <p>Heritage Conservation: There are currently no design guidelines for the Barrack Street heritage area. Additionally, three areas – Queen Street, Hay Street Mall and sections of Goderich Street – are being considered for potential listing under CPS2 but are yet to be endorsed.</p>

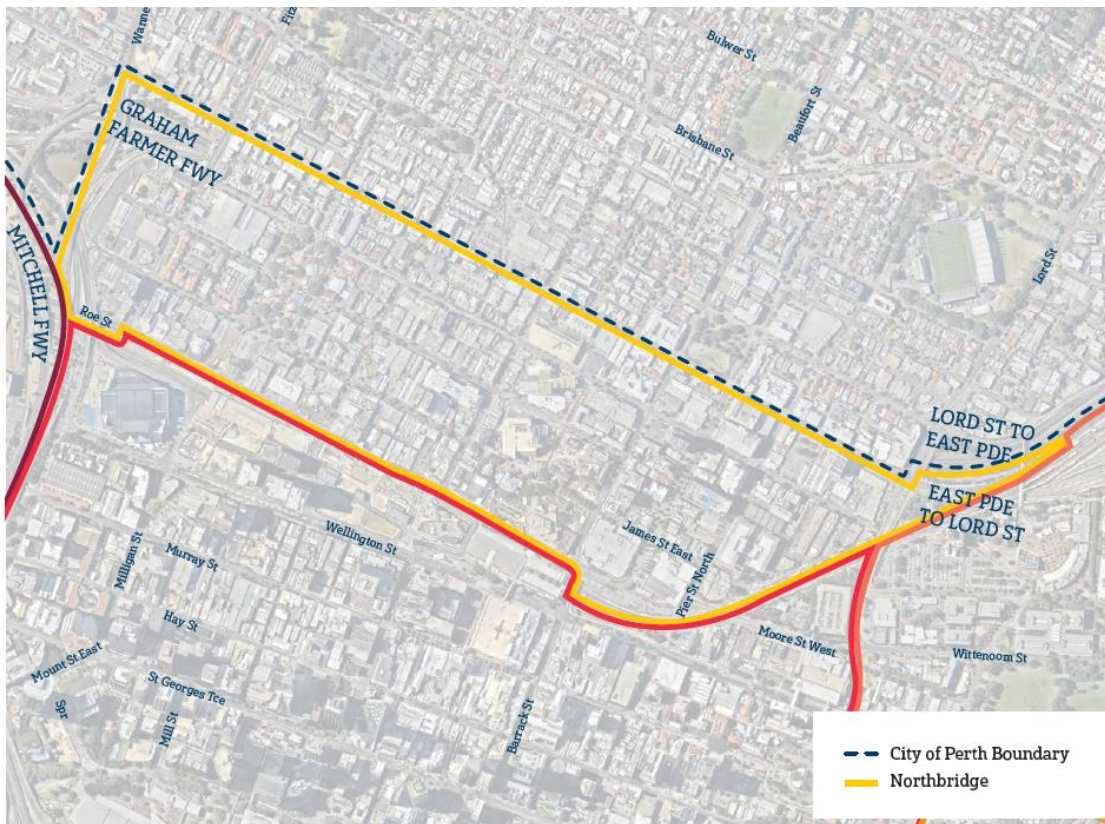
1.2. Northbridge

1.2.1. Northbridge neighbourhood profile

Northbridge is Perth city's most northerly neighbourhood, sharing its boundary to the south with the Perth City Link redevelopment area (refer to **Figure 5**). It is a diverse and dynamic inner-city neighbourhood that is characterised by a robust cultural, entertainment and night-time economy. It also provides a variety of residential and visitor accommodation and commercial services. The neighbourhood contains predominately low-scale development, with some recent larger-scale development interspersed in certain locations.

The south-eastern portion of the neighbourhood, the precinct bounded by Beaufort Street and the stretch of railway between McIver and Central Perth stations, is a key growth area in Perth city. Within this precinct, there are seven new developments – providing residential, student housing and short-term accommodation – recently completed, approved or under construction. This growth is set to heavily impact the dynamics of the area.

Figure 5 - Northbridge neighbourhood location plan



1.2.1.1. Land use

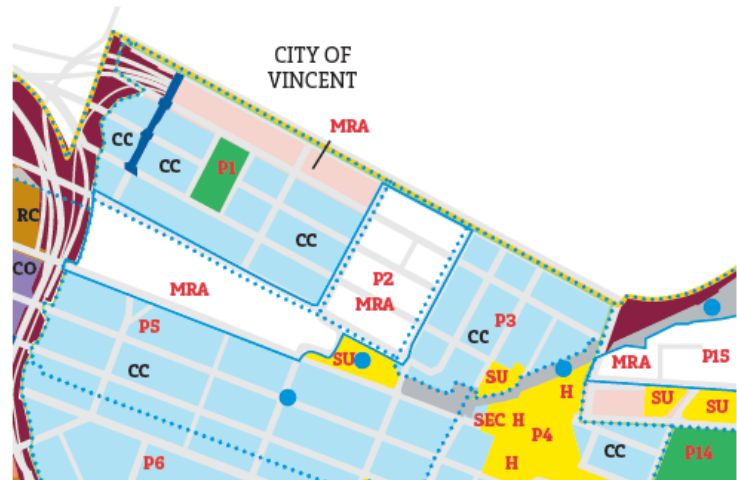
Most of the Northbridge neighbourhood is identified as 'City Centre' under the CPS2, except for the Development WA areas (e.g. the Perth Cultural Centre and NW TAFE campus), an MRS 'Primary Regional Road' and a Local Scheme Reserve for 'Parks and Recreation'.

The entertainment and hospitality industry is thriving in Northbridge, supported by the cultural drawcards of the Cultural Centre and the Perth Arena. Collectively, this blend of land uses has formed the largest cultural and entertainment precinct in WA. This makes Northbridge a lively and buzzing neighbourhood at night-time and on weekends, outside of Central Perth's peak periods. During the day, the neighbourhood is home to a range of land uses, including residential, office, not-for-profit, showroom and food and beverage.

Figure 6 - City Planning Scheme No. 2 - Northbridge neighbourhood

Legend

Scheme Area Boundary		Metropolitan Region Scheme Reserves	
Precinct Boundary		Parks & Recreation	
City Centre Boundary		Railways	
Metropolitan Redevelopment Authority Area		Waterways	
City Of Perth Scheme Use Areas		Public Purposes	
City Centre		• Hospital	
Residential/Commercial		• SECWA	
Commercial		• Special Uses	
Other		Roads	
Normalised Redevelopment Area		• Primary Regional Roads	
Note:		• Other Regional Roads	
The Department of Planning should be consulted for full information on the actual land requirements for all Metropolitan Region Scheme Reserves			
		City Centre Precincts	
		P1 - Northbridge	
		P2 - Cultural Centre	
		P3 - Stirling	
		P4 - Victoria	
		P5 - Citiplace	
		P6 - St Georges	
		Precincts	
		P14 - Goderich	
		P15 - East Perth	



The varied land uses within the neighbourhood mean the area performs relatively well in terms of a ‘live local’ score – which is due to the numerous supermarkets, medical centres, libraries and food and beverage premises (Intermethod, 2018). Residential growth is, however, putting pressure on the existing entertainment land uses, due to noise containment regulations as noted in Part 2 - Section 4.3.1.6.

1.2.1.2. Population and demographics

The residential growth of Northbridge can be conceptually divided into two distinct areas – the area east of the Cultural Centre, and the area to the west. The western area has had a long history as a residential area, with the first notable growth of the residential population occurring here between the late 1800s and early 1900s. From the 1996 - 2011, rapid residential growth took place due to State-led renewal of the inner-city, largely as part of the New Northbridge redevelopment project by Development WA (previously the Metropolitan Redevelopment Authority).

The area of Northbridge east of the Cultural Centre has had a more recent history as a residential area. It was previously dominated by commercial land uses before experiencing significant residential growth from 2013 onwards. This can be attributed to plot-ratio bonuses intended to incentivise residential development in the area, which were made available under CPS2.

The demographics of the overall Northbridge neighbourhood differs to the Perth city average in some notable respects (Profile id, 2016):

- There are relatively few children, particularly young children aged 0–4 years (1.3% vs. 3.1%);
- There are a far greater number of young adults aged 25–34 years (48.0% vs. 33.0%);
- There are relatively few people of retirement age (3.7% vs. 9.9%);
- Northbridge has more male than female residents, with males accounting for 55.6% of the population; and
- Less than a quarter (23.2%) of Northbridge residents were married, fewer than the average for all City of Perth residents (32.2%). Almost two thirds (64.8%) had never been married – perhaps reflecting the large proportion of young adults in the neighbourhood.

The presence of one of the State’s major tertiary institutions, North Metropolitan TAFE’s Northbridge campus, has significant influence on the housing market in the area. Only 22% of the residents living in this area (east of the

Cultural Centre) are purchasing or fully own their property, which is notably less than the Perth City average of 36% of residents. The median rent paid in the area is \$375 to \$424 per week, less than the average across the City of Perth (\$450–\$549 per week) (Australian Bureau of Statistics 2016).

Table 4- Northbridge resident and housing characteristics (Urbis, 2018)

Indicator	Northbridge	City of Perth
Resident characteristics		
Estimated resident population	2,053	26,950
Population growth (2006-16)	1,068	10,987
Median age	30	31
High income households	37.7%	43.3%
Low income households	30.0%	28.7%
Australia-born	32.1%	35.5%
Attending tertiary education	6.1%	17.8%

1.2.1.3. Dwelling characteristics

Dwelling typology in Northbridge differs substantially between the east and the west sides of the neighbourhood. Almost a third (31%) of dwellings in the western area are ‘medium density’ dwellings, whilst 93% of the eastern dwelling stock is ‘high density’. Aligned to this finding is that 97% of the dwellings contain one to two bedrooms. CPS2 encourages residential development within the eastern area, through the application of a bonus plot-ratio of up to 20%.

Table 5 – Northbridge dwelling characteristics (Urbis, 2018)

Indicator	Northbridge	City of Perth
Dwelling characteristics		
Total occupied dwellings	928	12,282
Average household size	1.9	1.9
Dwelling density	8	31
Owner occupier households	7.3%	15.4%
Social housing	6.2%	5.3%
Households with children	9.6%	16.5%
Three-bedroom households	10%	21%
Median rent (2017)	370	425
Median dwelling price (2017)	\$422,500	\$460,000

1.2.1.4. Built environment

The Northbridge neighbourhood built form is informed by its function as Perth’s primary entertainment and cultural precinct. The eastern end of the precinct is dominated by the Cultural Centre, which incorporates a mix of retained fine-grain low-rise historical buildings through to medium-scale cultural administrative and education buildings such as the Art Gallery of WA, the State Library of WA, North Metro TAFE campus, the Perth Theatre

Centre and the new Museum. These varying built forms provide interest and activity across the streetscapes.

The remainder of the neighbourhood’s built form currently consists of low to medium-rise non-residential or hotel development, predominantly operating for entertainment and cultural uses. Some new developments occurring in the neighbourhood are of a larger or taller scale, often amalgamating smaller lots and potentially eroding the fine grain elements provided by the smaller historical buildings. Smaller tenancies provide varied mixed-retail offerings along William and James Streets. Low to medium-scale residential development is located on the northern and eastern fringes of the neighbourhood.

The eastern-most portion of the neighbourhood abutting the Mitchell and Graham Farmer Freeway and Charles Street interchange, is an area currently consisting of medium-scale former industrial warehouses and recently constructed road connections relating to the Perth City Link development.

1.2.1.5. Character areas

There is one character area within Northbridge which is illustrated in **Figure 7** and described in **Table 7**.

Figure 7 - Northbridge character areas

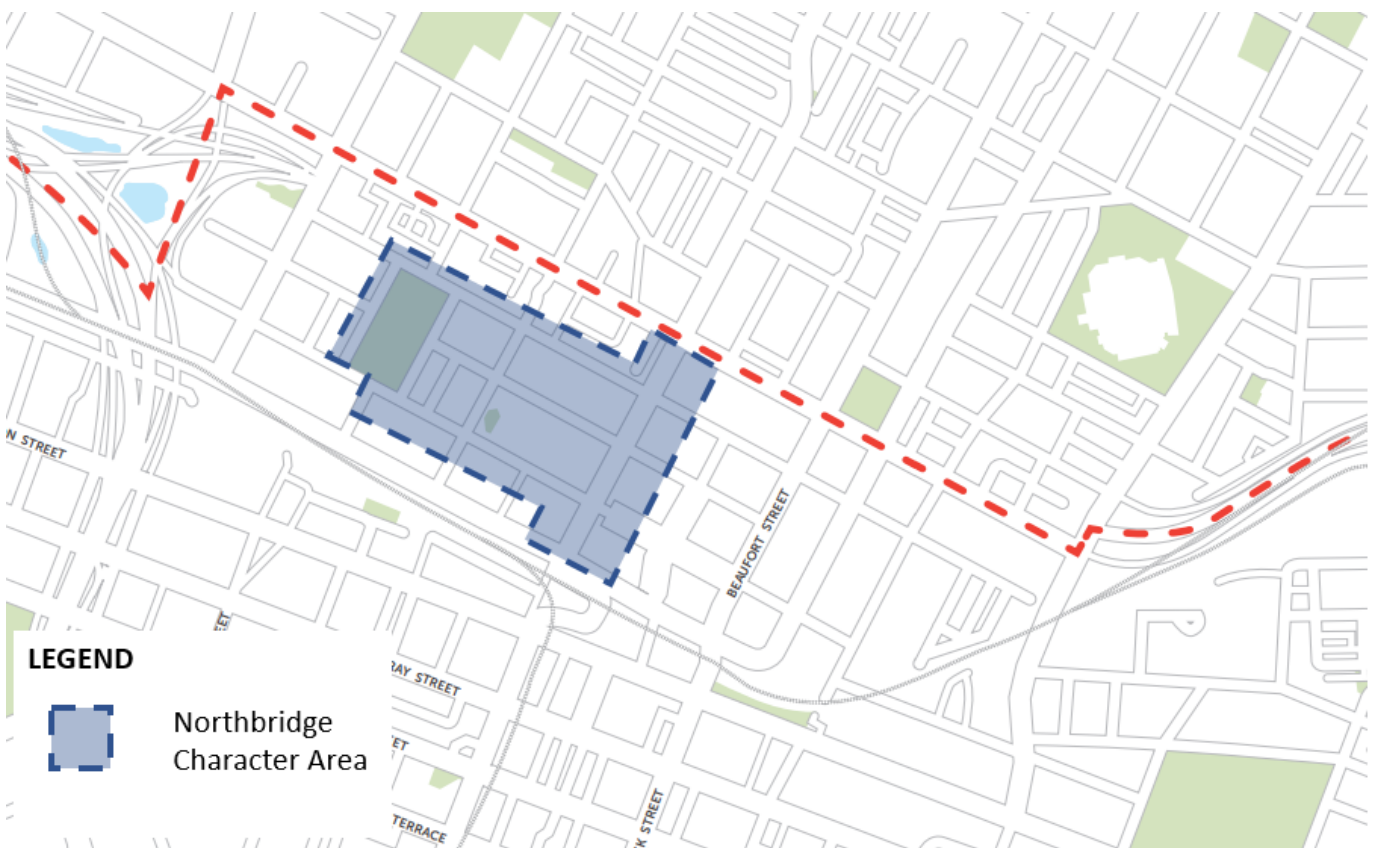


Table 6 - Northbridge character area

Character Area	Description
Northbridge character area	<p>Fine grained rhythm of development with streetscapes dominated by either:</p> <ul style="list-style-type: none"> • Narrow two and three storey facades built to the street, with transparent shopfronts and awnings over the footpath. • Narrow frontages with a mix of one and two storey facades setback from the street. • A diversity of building aesthetics with a vibrant mix of materials and colours. • A variety of pedestrian connections and spaces that add complexity and interest.

1.2.1.6. Local movement network

Northbridge has a fairly good level of walkability in terms of connectivity to land uses and transport. Street infrastructure such as footpaths, trees and awnings all contribute positively to the pedestrian experience. Generally, the streets of Northbridge are activated by the significant presence of retail and alfresco dining, which rely on passing trade and pedestrian volumes. The western pocket of Northbridge consists of mainly commercial and residential land-uses, which stimulate less pedestrian movement, resulting in an overall low 'place status' within this area of Northbridge.

Whilst much effort has been made in recent years to improve connectivity of Northbridge, as with Central Perth, cycle routes within the neighbourhood are compromised once they reach the more heavily-trafficked streets.

1.2.1.7. Culture

Northbridge's varied economy is supported by strong arts cultural offerings, which forms a critical component of the neighbourhood's sense of place. Overall, Northbridge is regarded as WA's premier entertainment precinct. Areas such as William Street have long been protected for their built form heritage, and the Perth Cultural Centre, which sits between Beaufort Street and William Street, is home to the Art Gallery of WA, State Library, State Theatre and the new WA Museum. This rich cultural and economic diversity also extends to the local demographic profile – approximately two-thirds of Northbridge residents (67.7%) were born outside of Australia, higher than the average of Perth city (64.2%) (refer to **Table 4**).

1.2.1.8. Open space

Other than Russell Square, the Urban Orchard and Weld Square (located in the City of Vincent), there is limited access to open space and a relatively low level of street trees within Northbridge. However, the neighbourhood is rich in urban spaces – with the Northbridge Piazza, the Perth Cultural Centre and Museum Street all appropriately positioned to complement pedestrian's interest in nearby attractions and businesses. Notwithstanding, there is a distinct lack of open space within the eastern portion of the neighbourhood.

1.2.2. Neighbourhood analysis

Strengths	Weaknesses	Opportunities	Threats
<p>Night-time activation: Northbridge has the highest night-time activation of all Perth neighbourhoods on week nights and weekends.</p> <p>Policy change: CPS2 Residential Bonus Plot Ratio incentivised residential development in the western area of Northbridge.</p> <p>Character: Much of the fine grain historic building stock is intact, providing a diverse and interesting human-scale street frontage, particularly along William Street and James Street.</p> <p>Culture: Significant cultural offer in terms of the neighbourhood being home to the Art Gallery of WA, State Library, State Theatre and, by 2020, the new WA Museum.</p> <p>Inclusive: Northbridge fosters a diverse cultural experience which is inclusive of all people.</p> <p>Live local: There are several small supermarkets, medical centres, libraries, and food and beverage opportunities within the neighbourhood.</p> <p>Economy: Strong entertainment and hospitality industries, with Northbridge being the largest metropolitan entertainment precinct in WA.</p> <p>Legibility and accessibility: Good accessibility via public transport (bus and rail), and connectivity has recently improved through the development of Perth City Link. Street network results in an easy to navigate pedestrian environment.</p> <p>Rental market: Historically, Northbridge has outperformed other rental markets in Perth city due to its desirability to a range of sub-markets. This is evident in the emerging student accommodation market.</p>	<p>Visitation: The number of visits to Northbridge from regional visitors is still relatively low.¹ Northbridge appears to have an image problem with regional residents, who (compared to metro residents) gave it the lowest ratings on all perceptual statements.</p> <p>Safety: There is a perception that Northbridge is unsafe and noisy, and therefore not as attractive to older people or families.</p> <p>Severance: The Cultural Centre divides two distinct areas of Northbridge, while Roe Street and the train line act as physical barriers to adjoining neighbourhoods.</p> <p>Open Space: Open space is limited within the neighbourhood, and a relatively low number of street trees adds to the neighbourhood's low environmental score.</p> <p>Family friendly: The neighbourhood performs poorly in terms of the family-friendly index, due to a lack of schools and childcare facilities in the immediate area.</p> <p>Fragmented land ownership: Northbridge has numerous smaller land holdings, older and vacant buildings and low-density development, which makes redevelopment more difficult.</p> <p>Active street frontages: High traffic levels along Beaufort Street and Roe Street has resulted in low levels of street level activation and unfriendly pedestrian amenity. Inactive street frontages within the western area results in limited pedestrian activity.</p> <p>Daytime activation: The strength of the night time economy within Northbridge limits vibrancy and activation during the day.</p> <p>Lack of neighbourhood centre: The absence of a clearly defined neighbourhood centre within Northbridge may mean the day to day needs of residents and workers are not being met.</p>	<p>Beaufort Street: The new WA Museum creates an opportunity to improve the interface of the Cultural Centre with Beaufort Street.</p> <p>Perth City Link: The completion of this will improve the connectivity between Northbridge and Central Perth and potentially draw more people into the neighbourhood.</p> <p>Development sites: While a lot of the land in Northbridge is fragmented, a large proportion of land is within freehold ownership. This typically makes redevelopment less challenging than strata-titled land.</p> <p>Students: The emerging student population will support the expansion of amenities and facilities in the immediate area.</p> <p>Northbridge East Residential Growth: The area of Northbridge east of Stirling Street is a prime area for residential growth as it falls outside of the Special Entertainment Precinct and contains several large underdeveloped parcels of land.</p> <p>Northbridge East Residential Growth: The area west of Fitzgerald Street located between the Special Entertainment Precinct and the Freeway contains several large underdeveloped parcels of land where a range of land use options could be developed.</p> <p>Public transport: the neighbourhood benefits from access to multiple train stations, including Perth train station Mclver train station.</p>	<p>Land-use conflict: Residential development in Northbridge puts pressure on the existing entertainment land uses. Mitigating land-use conflict will be critical as residential growth increases.</p> <p>Character: Residential price points in the neighbourhood are competitive. Apartment products are generally homogenous, which may erode the existing character of the area.</p> <p>Anti-social behaviour and safety: There are perceptions that Northbridge is unsafe which deters some people from visiting the area.</p>

¹ 22% of regional residents visited in the last 6 months, according to Tourism WA survey

1.3. East Perth

1.3.1. East Perth neighbourhood profile

East Perth is located between Central Perth and the Causeway, which connects Perth city with nearby Victoria Park and Burswood (refer to **Figure 8**). Several large-scale facilities and institutions are located within the East Perth neighbourhood, including the WACA Ground, Trinity College, and Gloucester Park. Over the past 20 years, there has been significant residential development within the neighbourhood, which now accommodates a significant proportion of Perth city's population, as well as a range of visitor accommodation, offices and a mix of commercial activities that contribute to the residential amenity.

Figure 8 - East Perth location plan



1.3.1.1. Land use

The planning framework for East Perth consists of a range of scheme use areas under CPS2, as well as areas that fall within State Government jurisdiction (refer to **Figure 9**). These include:

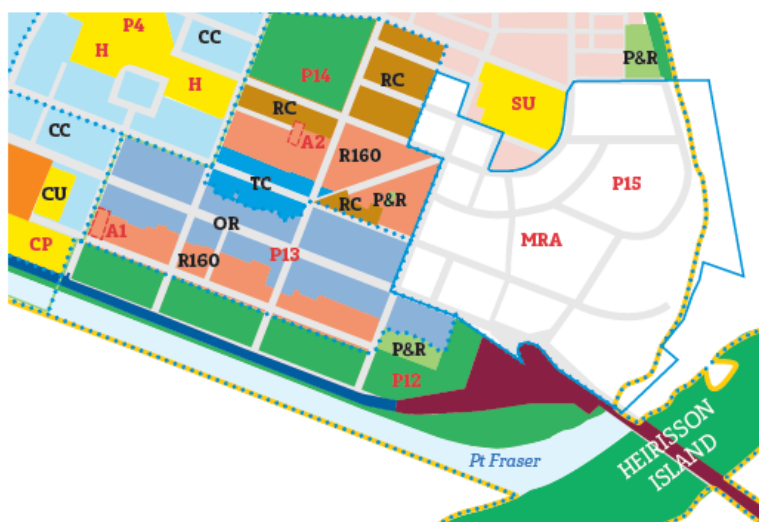
- Office/Residential – straddling either side of Adelaide Terrace;
- Town Centre – along Hay Street;
- Residential R160 – fronting Terrace Road and between Hay Street and Wellington Street;
- Residential/Commercial – two separate areas between Hay Street and Wellington Street;
- Local Scheme Reserve – Tallersall's Bowling Club and open space north of Nile Street;
- Development WA areas – the Riverside precinct;
- MRS 'Reserves' – Langley Park and Heirisson Island; and
- MRS 'Primary Regional Road' – including parts of Adelaide Terrace and Riverside Drive, as well as the Causeway.

East Perth benefits from several high-quality heritage buildings and places, as well as significant institutions that serve both the local community and visitors. The highest residential densities in Perth city are in East Perth, and there is a general level of community acceptance of high-rise and high-density built form in this area – given its connection to Central Perth. However, there is a general lack of community facilities and amenities such as public schools, family-friendly facilities, supermarkets and medical facilities (Intermethod, 2018). The Hay Street East activity centre does provide some services to the neighbourhood, however its breadth is limited relative to its large residential population catchment.

Figure 9 - City Planning Scheme No. 2 map - East Perth neighbourhood

Legend

Scheme Area Boundary		Metropolitan Region Scheme Reserves	
Precinct Boundary		Parks & Recreation	
City Centre Boundary		Civic & Cultural	
Metropolitan Redevelopment Authority Area		Waterways	
City Of Perth Scheme Reserves		Public Purposes	
Parks & Recreation		• Hospital	
City Of Perth Scheme Use Areas		• Car Park	
City Centre		• Special Uses	
Town Centre		Roads	
Residential		• Primary Regional Roads	
Office/Residential		• Other Regional Roads	
Residential/Commercial		City Centre Precincts	
Other		P4 - Victoria	
Additional Uses		P12 - Langley	
Normalised Redevelopment Area		P13 - Adelaide	
		P14 - Goderich	
		P15 - East Perth	



Note:
The Department of Planning should be consulted for full information on the actual land requirements for all Metropolitan Region Scheme Reserves

1.3.1.2. Population and demographics

Since 2011 the East Perth resident population has increased by approximately 1,918 people, equating to a 6.9% annual growth rate (refer to **Table 7**) (Australian Bureau of Statistics, 2016). Growth within the neighbourhood has been steady over the years, largely underpinned by flexible planning controls on Residential and Special Residential development under CPS2. The East Perth neighbourhood accounts for 27.4% of Perth city’s total population, and has the highest population density per hectare. Over the past five years, growth has continued to be dominated by the 30–39-year age group.

On the eastern flank of the neighbourhood, Development WA’s Waterbank redevelopment area is anticipated to commence development soon. Once completed, the 40-hectare precinct could accommodate up to 7,000 new residents – and will feature a mix of shops, office, bars, and restaurants. This has the potential to double East Perth’s population.

Table 7 - East Perth resident and housing characteristics (Urbis, 2018)

Indicator	East Perth	City of Perth
Resident characteristics		
Estimated resident population	7,288	26,950
Population growth (2006-16)	3,863	10,987
Median age	31	31
High income households	43.6%	43.3%
Low income households	26.8%	28.7%
Australia-born	28.6%	35.5%
Attending tertiary education	10.2%	17.8%

More than two thirds (71.1%) of East Perth residents were born outside of Australia, higher than the average for Perth city (64.2%) and Greater Perth (38.7%).² According to 2016 Census data, these immigrants came from a variety of countries, including England (7.3% of East Perth population), China (6.0%), India (5.4%) and Malaysia (4.4%). The diverse cultural makeup of East Perth’s population is notable, and an important aspect of the neighbourhood’s social fabric.

1.3.1.3. Dwelling characteristics

East Perth has a very high proportion of high-density dwellings (95.9% of neighbourhood dwellings compared to Perth city average of 82.8%). Analysis shows that home ownership aligns closely to the common trends found within the city – with renting the dominant tenure type in East Perth, representing two-thirds (66.6%) of residents renting privately. This is slightly higher than the city average (61.7%). The median rent paid is \$375 to \$424 per week, which makes it one of the most affordable neighbourhoods to live in Perth city.

Many dwellings in East Perth are lone households (32%), which is similar to the average for Perth city. Interestingly, these lone households contain a large percentage of older people aged over 65 years, which contrasts with Perth city trends (Profile.id, 2016).

² Excluding ‘not stated’

Table 8 – East Perth dwelling characteristics (Urbis, 2018)

Indicator	East Perth	City of Perth
Dwelling characteristics		
Total occupied dwellings	3,651	12,282
Average household size	1.9	1.9
Dwelling density	61	31
Owner occupier households	11.8%	15.4%
Social housing	6.0%	5.3%
Households with children	15.8%	16.5%
Three-bedroom households	20%	21%
Median rent (2017)	420	425
Median dwelling price (2017)	\$425,000	\$460,000

1.3.1.4. Built environment

The built form of the western and southern areas of East Perth city neighbourhood are dominated by medium to tall tower-style developments. Streetscape activity levels vary across the neighbourhood where these developments are located, due to low levels of available space provided at ground floor to operate retail or other active uses. Ground floors of many tower developments across the neighbourhood solely consist of lobbies and vehicle and waste access, reducing the ability to provide greater levels of active uses.

Significant landholdings reserved for public purpose are located in the east of the city neighbourhood – including Perth Mint, the WACA, Gloucester Park and State Government redevelopment areas such as Waterbank, as well as at-grade uncovered car parking. An eastern section of Goderich Street consists of a number of historical single-storey residential buildings that offers an essentially intact streetscape.

1.3.1.5. Character areas

There is one character area within East Perth which is illustrated in **Figure 10** and described in **Table 9**.

Figure 10 – East Perth character area



Table 9 – East Perth character area

Character Area	Description
Terrace Road character area	<ul style="list-style-type: none"> A stepped profile of buildings that provide a transition of scale from Langley Park towards the north and respond to the change in topography.

1.3.1.6. Local movement network

Generally, the streets in East Perth have relatively high movement levels compared to other Perth city neighbourhoods such as Nedlands-Crawley and Claisebrook. This is primarily due to the strong north-south connections to regional roads and to neighbouring local government areas of the City of Vincent and Town of Victoria Park. Most of this traffic is contained to Adelaide Terrace, Riverside Drive, Bennett Street and Plain Street, reducing the amount of through-traffic within the neighbourhood’s lower-level local roads (City of Perth, 2017^d).

The high traffic-movement levels within the neighbourhood impact on its ability to operate as a ‘place’. Streets scoring the highest status as ‘places’ are Hay Street between Hill Street and Bennett Street, which correlates to activity within the Hay Street East activity centre. The remainder of the neighbourhood currently lacks vibrancy and streetscape activation during the day – a result of several land uses and older building stock that limit daytime activation.

1.3.1.7. Culture

Numerous regionally significant cultural places and event spaces are located in the East Perth neighbourhood. Heirisson Island is one of the most significant sites for Whadjuk Nyoongar people within Perth city. They have

traditionally used the island as a camping ground, meeting place, hunting place and to collect important plant resources. It is also the beginning of a songline running through the city up to Kings Park. The Perth Mint was opened in June 1899 and is Australia's official bullion mint and wholly owned by the Government of Western Australia. The WACA and Gloucester Park hold significant sporting events throughout the year, whilst Langley Park hosts a diverse range of events. In 2018, Langley Park had the second highest number of approved events in the city.

1.3.1.8. Open space

The open space areas account for approximately 19% of the neighbourhood's total land area. These spaces are largely associated with the Swan River foreshore, offering social and recreational value to the local community and visitors. Queens Park is located more centrally within the neighbourhood and provides a traditional gated park setting. However, the central-western portion of the neighbourhood along the Hay Street activity centre lacks convenient access to open spaces.

1.3.2. Neighbourhood analysis

Strengths	Weaknesses	Opportunities	Threats
<p>Density provisions: Density provisions have historically been higher than other neighbourhoods outside of Central Perth, and have supported larger-scale residential development, making it a key residential area.</p> <p>Swan River: The neighbourhood is in close proximity to the Swan River – a natural and recreation asset.</p> <p>Aged facilities: Unlike many other neighbourhoods, there are a variety of ageing services, including a 40-dwelling aged-care facility, Tattersalls Bowling Club and other services.</p> <p>Education: There are two private schools within the neighbourhood – although there are no public schools.</p>	<p>Connectivity: The neighbourhood is severed from adjoining neighbourhoods, due to busy roads and the river. It is not located within close proximity to any train stations. Parts of the neighbourhood are also poorly connected to public transport and movement networks are illegible. Additionally, steep topography and the Causeway footpath are not conducive to creating an attractive walkable environment.</p> <p>Vibrancy: The area lacks any ‘heart’ or community node.</p> <p>Streetscape: Many streets are dominated by vehicle movements and lack pedestrian infrastructure and landscaping.</p> <p>Live local: Whilst there is the presence of secondary schools, there is limited availability of community facilities to support the population.</p> <p>Supermarkets: There is a limited local shopping offer, as well as limited family facilities such as community centres and playgrounds.</p> <p>Hay Street East: This activity centre struggles to generate the activity required to support operations, despite the large residential and commercial catchment.</p> <p>Underutilised land: There are large areas of underutilised land around the WACA and Gloucester Park. These are under Development WA’s control and require a coordinated plan for redevelopment.</p> <p>Public transport: East Perth is not serviced by a train station and the eastern portion of the neighbourhood has limited access to bus services.</p> <p>Fragmented land control: Due to the large institutions and redevelopment areas, there are several stakeholders involved in future development of the neighbourhood, which could hinder the City’s ability to meet community expectations.</p> <p>Green spaces: the west end of the neighbourhood has limited access to public open space.</p>	<p>Land availability: There are several large land parcels in freehold ownership that offer significant redevelopment opportunities, especially within the Riverside precinct.</p> <p>Historic built form: There are several heritage structures within the neighbourhood that could be better celebrated and retrofitted for use.</p> <p>Green space: The neighbourhood is surrounded by large areas of public open space that could be better utilised and would benefit from improved pedestrian and cycle connections.</p> <p>New stadium: The new stadium presents a key opportunity to draw people into the neighbourhood and benefit local businesses.</p> <p>Residential density: There is a general community acceptance of high-density development within the neighbourhood. It is a familiar residential development opportunity area to developers, making it a low risk investment area.</p> <p>Sporting infrastructure: Repurposing the use of sporting infrastructure such as the WACA and Gloucester Park to attract more diverse audiences and activity to East Perth.</p> <p>Development capacity: the plot ratios provided in the current scheme could be increased to stimulate new development opportunities.</p> <p>Unique character: there are several areas with distinct built form which creates a unique character specific to the neighbourhood.</p> <p>Street activation: There is opportunity for greater street activation across East Perth, particularly within the Hay Street activity centre. This could include the promotion of outdoor dining.</p>	<p>Competition: Whilst nearby areas offer redevelopment potential that could positively impact the neighbourhood’s vitality, redevelopments such as the Old Perth Girls School, could potentially compete with the existing activity centre if not planned appropriately.</p> <p>Community opposition: Whilst density has generally been accepted in the past, as the population increases there is the risk that existing residents be sensitive to loss of views, overshadowing and the delivery of more affordable product.</p> <p>Climate change: Due to the foreshore location of this neighbourhood, planning should address climate change and the potential impact of a 100-year flood on the area.</p> <p>Office relocation: The loss of significant Government workers will reduce daytime activity and vibrancy which has the potential to detrimentally impact local businesses.</p> <p>Heritage built form: there are areas of East Perth (including Goderich Street) that have heritage significance, but do not currently have heritage protection under the current scheme.</p>

1.4. Claisebrook

1.4.1. Claisebrook neighbourhood profile

Claisebrook is located on the north-eastern edge of Perth city (refer to **Figure 11**). Claisebrook was historically the location for industrial uses in the early twentieth century, including the East Perth Gas Works, engine sheds and railway yards. The neighbourhood is rich in history, including Perth’s significant early colonial era cemetery. Presently, the neighbourhood comprises of a large area of remediated, former industrial land that was redeveloped by Development WA (formerly the East Perth Redevelopment Authority and the Metropolitan Redevelopment Authority) into a residential neighbourhood in the 1990s. The area has a mix of land ownership patterns, with a number of government-owned landholdings located within the western portion of the area, supporting a strong employment base. The area generally consists of low to medium-rise residential development, with several larger scale residential developments being approved in recent years. There is a relatively low amount of commercial space, other than several retail, dining and entertainment premises around Claisebrook Cove and Royal Street.

Figure 11 - Claisebrook neighbourhood location plan



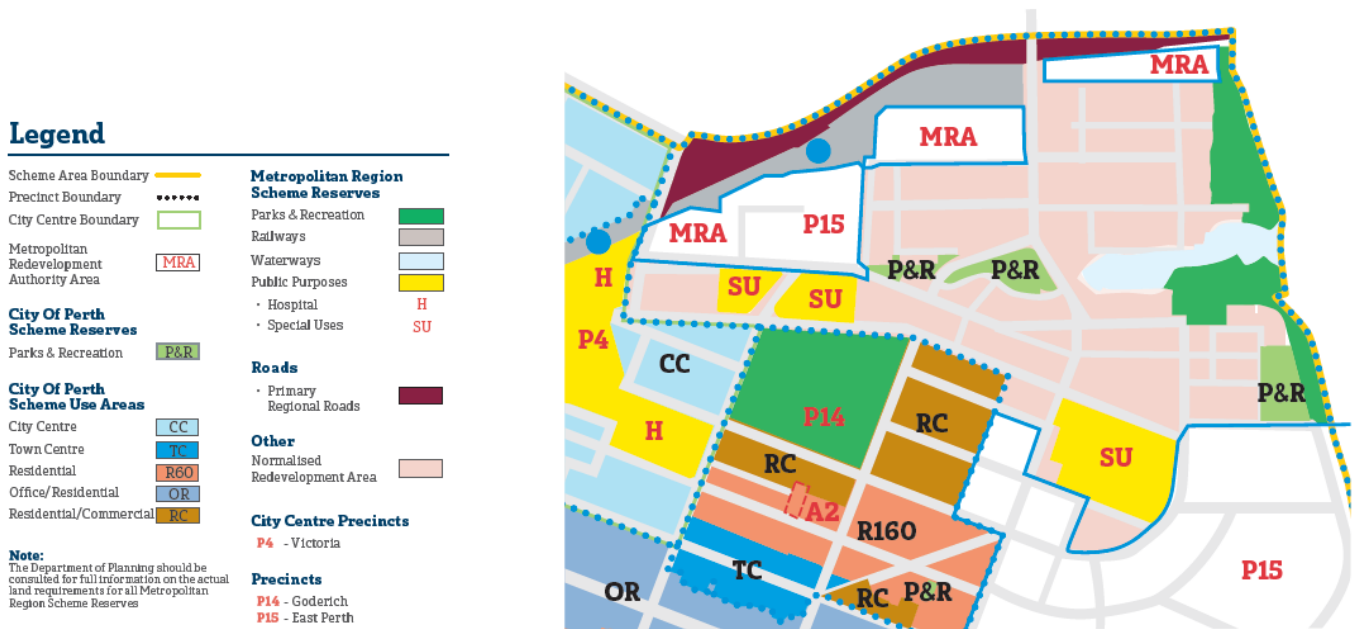
1.4.1.1. Land use

The majority of Claisebrook is encompassed by the City of Perth’s Local Planning Scheme No. 26 – Normalised Redevelopment Areas (LPS26), with only a few precincts to the north remaining under the control of Development WA. Land reserved under the MRS ‘Public Purpose – Hospital’ (Royal Perth Hospital precinct) is located to the west and there is an MRS Parks and Recreation Reserve to the east. The central northwest of the neighbourhood was redeveloped over the last 20 years to residential and low-density commercial, with the intent of serving local needs. The central south west of the neighbourhood is dominated by Wellington Square, which the City is currently reviewing and planning for redevelopment. Wellington Square is bordered to the immediate east and west by the following land use areas under CPS2: Commercial, Residential and Residential/Commercial and Residential (refer to **Figure 12**).

Whilst Claisebrook Village is considered to have been a well-planned urban regeneration initiative, it was developed on the fringe of Perth city at a time when suburban low-density prevailed – against the backdrop of a city unfamiliar with contemporary forms of high-density living. Arguably, it has not been designed to deliver the population densities required to ultimately create a vibrant urban village (East Perth Redevelopment Authority. 2011). Furthermore, whilst Local Planning Scheme No. 26 encourages a mix of land uses, predominantly residential uses have prevailed.

Royal Street is the neighbourhood’s main activity centre. However, visitation to the centre is limited – and at 500m long, the centre struggles to sustain a high level of activation for its full length. As a consequence, the precinct is suffering from high levels of street-front vacancy (Intermethod, 2018). The eastern end of Royal Street finishes at Claisebrook Cove which is an inlet fed by the Swan River. Cafes and bars located along the Cove’s water edge typically experience higher activity levels during the evenings and weekends, acting as a prime destination for residents. Whilst Royal Street has the built form and environmental qualities of a main street, its regional attraction is limited, and its activity levels are shown to significantly drop at night-time.

Figure 12 – City Planning Scheme No.2 and Local Planning Scheme No. 26 maps - Claisebrook neighbourhood



1.4.1.2. Population and demographics

Claisebrook has a recent history as a residential area. From the mid-1990s, rapid residential growth took place because of new dwellings being constructed in the Claisebrook Village area. Between 1996 and 2011, the population more than quadrupled – as former industrial areas were redeveloped into residential areas by Development WA.³ Since 2011, Claisebrook’s population has increased by approximately 594 people, equating to a 3.6% annual growth rate (refer to **Table 10**) (Australian Bureau of Statistics, 2016). Largest growth has been in the 25–34 year age bracket, where the population accounts for 40% of overall population growth between 2011–16, though the median age remains higher than the average for the city (Australian Bureau of Statistics, 2016).

Despite comprising 14.6% of Perth city’s resident population, and having more multi-bedroom dwellings compared to the Perth city average, the neighbourhood is not well serviced by community infrastructure – lacking direct access to schools, medical centres and other community facilities conducive to everyday family living.

Table 10 - Claisebrook resident and housing characteristics (Urbis, 2018)

Indicator	Claisebrook	City of Perth
Resident characteristics		
Estimated resident population	3,938	26,950
Population growth (2006-16)	930	10,987
Median age	36	31
High income households	51.1%	43.3%
Low income households	22.5%	28.7%
Australia-born	46.1%	35.5%
Attending tertiary education ³⁸	6.7%	17.8%

Whilst the family composition of residents in Claisebrook is similar to the Perth city average, the neighbourhood has a higher number of homeowners (36%) and a wealthier population – with 29.6% of households earning over \$3,000 per week. Whilst the neighbourhood experiences higher mortgage repayments – and a higher proportion of households paying high rental payments, compared to the Perth city average – less than one in ten (8%) of the neighbourhood’s residents are experiencing housing stress.⁴

1.4.1.3. Dwelling characteristics

Dwellings in the Claisebrook neighbourhood are largely concentrated around Claisebrook Cove, as a result of the Development WA’s redevelopment design. The density of dwellings within the neighbourhood is generally lower than the Perth city average – 71% of dwellings in the neighbourhood are high density (flats or apartments of three storeys or more), compared to 82.8% for Perth city as a whole. There is also almost twice the number of medium-density dwellings in Claisebrook, compared to Perth city (24.4% vs. 12.6%).

³ Excludes responses not stated or not applicable.

⁴ Housing Stress is defined as per the NATSEM (National Centre for Social and Economic Modelling) model as households in the lowest 40% of incomes who are paying more than 30% of their usual gross weekly income on housing costs.

Table 11 - Claisebrook dwelling characteristics (Urbis, 2018)

Indicator	Claisebrook	City of Perth
Dwelling characteristics		
Total occupied dwellings	1,945	12,282
Average household size	2.0	1.9
Dwelling density	21	31
Owner occupier households	21.7%	15.4%
Social housing	4.5%	5.3%
Households with children	14.2%	16.5%
Three-bedroom households	33%	21%
Median rent (2017)	385	425
Median dwelling price (2017)	\$520,000	\$460,000

1.4.1.4. Built environment

As discussed previously, the built form of the Claisebrook neighbourhood varies significantly. The predominant built form of the north-western precinct consists of medium-density residential, focused around Claisebrook Cove. The medium-density style of development is a result of the East Perth Redevelopment project that converted the former industrial area into a residential and mixed-use precinct and realigned the original Claise Brook into Claisebrook Cove. The built form in this area consists of medium-density residential development that surrounds Claisebrook Cove, with low to medium-rise commercial development focused around Royal and Lord Streets. Built form south of Royal Street, between Wellington Square and East Perth Cemetery, currently consists of low to medium-density residential in the south and small-scale warehouses and industrial buildings in the north.

There are several government agencies that reside within Claisebrook. These office spaces require larger floorplates, which results in many of the areas in the north and west of the neighbourhood being characterised by large, bulky built-form. Prescriptive requirements under the current planning framework have not helped innovate built-form design responses in the area.

1.4.1.5. Character areas

There are three character areas within Claisebrook which are illustrated in **Figure 13** and described in **Table 12**.

Figure 13 - Claisebrook character areas



Table 12 - Claisebrook character areas

Character Area	Description
Claisebrook residential character areas	<ul style="list-style-type: none"> Tree lined residential streets that accommodate a fine grain of low to medium rise residential buildings with many windows and balconies overlooking the street and landscaped front yards.
Brown and Kensington Street character areas	<ul style="list-style-type: none"> Large east west street blocks with numerous light industrial/warehouse buildings, some of which have been repurposed.
Claisebrook Cove character area	<ul style="list-style-type: none"> Medium rise waterfront buildings with alfresco spaces contributing to a coordinated promenade character.

1.4.1.6. Local movement network

Around half of Claisebrook dwellings are within an 800m distance from Claisebrook or McIver train stations, however connectivity is limited in places due to poor legibility and the orientation of the street network. Furthermore, the neighbourhood’s wider catchment opportunities are limited due to severance caused by the railway and freeway infrastructure to the north and the river edge to the east. Connectivity between Royal Street and Claisebrook Cove is poor due to ground level changes and poor sight lines. A free CAT service operates throughout the day however, severance and connectivity issues result in a one-way route system which is not time efficient. It also does not service the north eastern residential and small commercial area of Claisebrook, limiting both resident and worker movements and reducing accessibility by visitors.

1.4.1.7. Culture

Old Perth Girls School and East Perth Cemetery provide areas of historical interest in the area, with the Old Perth Girls School site identified for its historical and potential redevelopment significance. The whole neighbourhood has a deep and rich cultural history associated with the Whadjuk Nyoongar people. There are a number of Registered Aboriginal Sites within Claisebrook, particularly along the Swan River foreshore, Claisebrook Cove and Wellington Square.

1.4.1.8. Open space

Claisebrook benefits from its proximity to high-quality green spaces, with the majority of the neighbourhood being within a walkable distance to open space areas and the Swan River. This provides opportunities for passive and informal active recreation to residents and visitors. Wellington Square is a dominant feature within the neighbourhood, and the upcoming conservation and upgrade works will contribute to potential changes in built form abutting the park. The nearby Matagarup Bridge will improve connectivity to the river and Burswood, and has the potential to generate new economic opportunities if footfall traffic can be captured and capitalised upon.

1.4.2. Neighbourhood analysis

Strengths	Weaknesses	Opportunities	Threats
<p>Built form: Much of the area performs well in terms of its built form, largely due to a significant amount of the area being master planned.</p> <p>Population: The neighbourhood has an established resident population.</p> <p>City Farm: Is an important 'community' asset that is a key local attractor.</p> <p>River: The Swan River and Claisebrook Cove offer boating and water activities as well as a pleasant visual amenity.</p> <p>Housing diversity: A range of dwelling typologies exist, including terraces, townhouses, apartment products and three-bedroom dwellings.</p> <p>Cycling: Claisebrook is an attractive cycling destination, which promotes activation of streets and incidental business activity.</p>	<p>Activity: Has the lowest level of weekday day-time activity, primarily due to the streets being occupied by local destination land uses and limited on-street activity.</p> <p>Connectivity: There is a rail connection at Claisebrook and McIver station, but both stations have significant pedestrian access issues. There is also a disconnect to Central Perth due to poor east-west public transport connections.</p> <p>Severance: Large-scale barriers, such as the railway infrastructure and freeway, limit pedestrian connectivity. This also creates a severance to wider population catchments.</p> <p>Royal Street centre: Despite significant investment in streetscape and public open space, the length of Royal Street (over 500m long) makes it difficult to sustain a high level of activation along its full length further resulting in a lack of intensity in the centre.</p> <p>Vacancy: The levels of commercial and office vacancy are high, particularly along Royal Street, which adds to the lack of 'buzz'.</p> <p>Live local: Claisebrook scored poorly on the 'live local' measure, despite many residents living in Claisebrook. This is largely due to a lack of facilities such as medical centres, supermarkets, playgrounds, child care and schools.</p> <p>Affordability: housing affordability in Claisebrook is low when compared to the otherneighbourhoods.</p> <p>Urban greening: low levels of in-ground landscaping are provided on private properties.</p> <p>Planning controls: development in this neighbourhood has historically been guided by multiple planning authorities, which has resulted in different approaches to planning controls and development.</p>	<p>Significant economic opportunity: With the completion of the Matagarup footbridge there is the opportunity to improve pedestrian linkages between precincts which could increase visitation to support the retail offer and improve the night-time economy.</p> <p>Historical land use: All of the city's industry/manufacturing activity land use is located in Claisebrook, which could contribute to economic diversification (e.g. through creative industries).</p> <p>Unencumbered Land: There are a high number of large, freehold land parcels in north-west Claisebrook with redevelopment potential.</p> <p>Wellington Square: Upgrades to Wellington Square will support the renewal of the immediate surrounding area. This will be further supported by other potential redevelopment areas, such as Silver City, Old Perth Girls School and the Royal Perth Hospital precinct.</p> <p>Social Offer: The redevelopment potential in the area presents the opportunity to increase the provision of social infrastructure for current and future residents.</p> <p>New stadium: The new stadium presents a key opportunity to draw people into the neighbourhood and benefit local businesses.</p> <p>Land availability: There are several large land parcels in freehold or government ownership that offer significant redevelopment opportunities, especially around the McIver and Claisebrook train stations.</p> <p>Development capacity: although there is unused development potential under the existing scheme, there is an opportunity to increase plot ratio to stimulate new development in strategic locations.</p> <p>Unique character: there are several areas with distinct built form which creates a unique character specific to the neighbourhood.</p>	<p>Older developments: These may not be worth redeveloping due to their small lot size (which limits development opportunity).</p> <p>Competing neighbourhoods: Due to the lack of existing 'live local' services, other nearby neighbourhoods may outperform Claisebrook in the delivery of larger scale residential development, which in turn supports the delivery of additional services.</p> <p>Large mixed use: Redevelopments may have the potential to detract from the existing Royal Street centre if not appropriately planned for.</p> <p>Climate change: Due to the foreshore location of this neighbourhood, planning should address climate change and the potential impact of a 100-year flood on the area.</p>

1.5. West Perth

1.5.1. West Perth neighbourhood profile

West Perth is a mixed-use residential, office and commercial precinct, covering 14.1% of the overall Perth city land area (refer to **Figure 14**). A significant proportion of the original low-scale housing stock has been converted to commercial uses, or demolished and amalgamated to accommodate larger-scale mixed-use developments. Several resource-based, medical specialists, consulting companies are located in clusters throughout the neighbourhood. Parliament House is situated on the south-eastern end of the area, overlooking Central Perth. The main retail and café strip, and small-scale commercial facilities, are situated along Hay Street. The night-time economy is limited, and low-key weekend trading caters for residents. A section of West Perth to the north, over the railway line, accommodates predominantly lower-scale commercial development which offers bulky retail services, office as well as SciTech. The Watertown complex, a factory outlet, is also located within this area.

Figure 14 - West Perth neighbourhood location plan



1.5.1.1. Land use

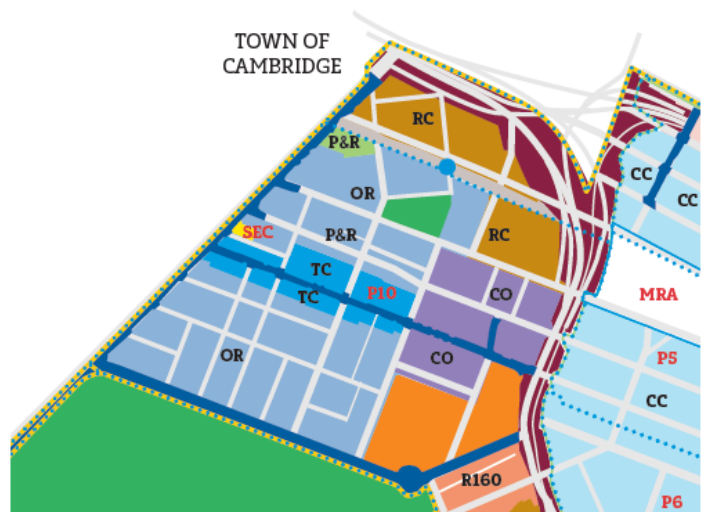
West Perth has a range of uses under CPS2 (refer to **Figure 15**):

- Town Centre – along both sides of Hay Street between Havelock Street and Thomas Street;
- Office/Residential – the area to the north and south of the ‘Town Centre’;
- Residential/ Commercial – situated to the north of the area focused on Railway Street and adjacent to the Mitchell Freeway, as well as along Mounts Bay Road;
- Commercial – located between Havelock Street and the Mitchell Freeway; and
- Several MRS Reserves (including Parks and Recreation and Public Purposes) and a Local Reserve for Parks and Recreation are also situated within the area.

Figure 15 - City Planning Scheme No. 2 map - West Perth neighbourhood

Legend

Scheme Area Boundary		Metropolitan Region Scheme Reserves	
Precinct Boundary		Parks & Recreation	
City Centre Boundary		Railways	
Metropolitan Redevelopment Authority Area		Civic & Cultural	
City Of Perth Scheme Reserves		Public Purposes	
Parks & Recreation		• SECWA	
City Of Perth Scheme Use Areas		Roads	
City Centre		• Primary Regional Roads	
Town Centre		• Other Regional Roads	
Residential		City Centre Precincts	
Office/Residential		P5 - Cityplace	
Residential/Commercial		P6 - St Georges	
Commercial		Precincts	
Note:		P10 - West Perth	
The Department of Planning should be consulted for full information on the actual land requirements for all Metropolitan Region Scheme Reserves			



Parts of West Perth present a village feel due to its fine grain development. This is particularly evident within the Hay Street West activity centre and the leafy stretch between Colin Street and Outram Street (Intermethod, 2018). The existing town centre has a high business-density, with many independent, small businesses situated within a ‘main street’ style of development. This fine-grain development, coupled with landscaped character, is unique to West Perth – offering a different ‘sense of place’ and streetscape to other Perth city neighbourhoods.

Whilst the neighbourhood has many independent small businesses, there is a noticeable lack in the diversity of land uses that operate beyond the 9am–5pm weekday period – particularly those businesses that generate activity and visitation to the neighbourhood.

The area straddling Wellington Street is considerably different in its style of development, and offers considerable redevelopment potential due to large underdeveloped parcels of land within close proximity to the City West train station, public open space and Central Perth.

1.5.1.2. Population and demographics

West Perth currently comprises 10.6% of Perth city’s resident population (refer to **Table 13**).⁵ The West Perth population is predominantly working age, with 83% of residents aged between 18 and 64 years, like the figure for the whole City of Perth (83.7%). There are relatively few children, with just 95 residents (3.6%) being school-aged (5–17 years). The neighbourhood offers a desirable living environment, due to its access to green space, proximity to Central Perth, its ‘urban village’ feel and proximity to assets such as Parliament House and Kings Park. However, the dominance of commercial land-uses means that the neighbourhood empties on weekends. Furthermore, the neighbourhood lacks family-friendly facilities and ‘live local’ type amenities such as a primary

⁵ Excluding King’s Park

school, library and full-line supermarket.

Single person households were the most common household type in West Perth in 2016, with 37.4%, followed by couples without children (26.6%). Just over one in ten households contained families with children, with 7.0% of households being couples with children, and 3.9% being single parent households. These are similar statistics to the whole City of Perth area. Out of all Perth city neighbourhoods, West Perth has the lowest proportion of residents suffering from housing stress (City of Perth. 2016^a).

Table 13 - West Perth resident and housing characteristics (Urbis, 2018)

Indicator	West Perth	City of Perth
Resident characteristics		
Estimated resident population	2,858	26,950
Population growth (2006-16)	1,144	10,987
Median age	32	31
High income households	44.9%	43.3%
Low income households	27.9%	28.7%
Australia-born	37.9%	35.5%
Attending tertiary education ³⁸	9.8%	17.8%

1.5.1.3. Dwelling characteristics

West Perth contains markedly more 'high density' dwellings compared to the average across the city (95.3% of neighbourhood dwellings compared to Perth city average of 82.8%). Correspondingly, there is relatively less separate and medium-density housing in the neighbourhood. There are around half the number of three-bedroom dwellings in West Perth, relative to the city average (11.0% vs. 20.8%). There were no dwellings recorded as having four bedrooms or more.

Table 14 - West Perth dwelling characteristics (Urbis, 2018)

Indicator	West Perth	City of Perth
Dwelling Characteristics		
Total occupied dwellings	1,608	12,282
Average household size	1.7	1.9
Dwelling density	18	31
Owner occupier households	9.5%	15.4%
Social housing	8.5%	5.3%
Households with children	14.1%	16.5%
Three-bedroom households	11%	21%
Median rent (2017)	425	425
Median dwelling price (2017)	1,560	12,540

1.5.1.4. Built environment

The built form in the neighbourhood predominantly consists of medium-scale office and residential development set within a landscaped setting. Intermittent historically intact streetscapes of former single storey residences add

to the unique character of the neighbourhood. Unlike the CBD Core, which has large floorplate commercial development, West Perth is generally characterised by fine grain street-front development – and has many houses that have been converted in to commercial and mixed-use land uses over time. Much of the fine grain character is a result of the historical narrow lot residential development, however, as growth pressure intensifies, the neighbourhood is at risk of losing this built-form character. The two-way conversion of Hay Street, and improve pedestrian environment will play a significant role in influencing built-form outcomes along Hay Street – and bring greater vibrancy to the neighbourhood. The built form in the northern and eastern precincts of the neighbourhood is markedly different, including older, former industrial-scale buildings and a more recently constructed warehouse-style shopping centre (Watertown).

1.5.1.5. Local movement network

West Perth’s streets have a wide range of traffic levels, from small suburban streets through to major arteries (Mitchell Freeway and Thomas Street). The streets are most active during the daytime on weekdays, and are relatively inactive on weekday evenings and weekends. This reflects the land use of the area, being office/commercial (with limited retail, residential and entertainment space).

The ‘psychological distance’ of West Perth is much greater than its physical distance from Central Perth. Large land parcels and infrastructure severances impact on the pedestrian environment and connectivity between these areas. This could be improved through enhancements to the public realm, activation of ground floor uses as well as improved way-finding and connectivity between the West Perth and Central Perth neighbourhoods.

West Perth is predominantly serviced by public transport through east to west routes. The neighbourhood is well serviced by the Fremantle-Armadale train and daytime CAT bus. However, public transport outreach is limited in the north-south and, as mentioned, severances significantly impact walkability and accessibility to public transport services.

1.5.1.6. Character areas

There are three character areas within West Perth which are illustrated in **Figure 16** described in

Table 15.

Figure 16 – West Perth character areas

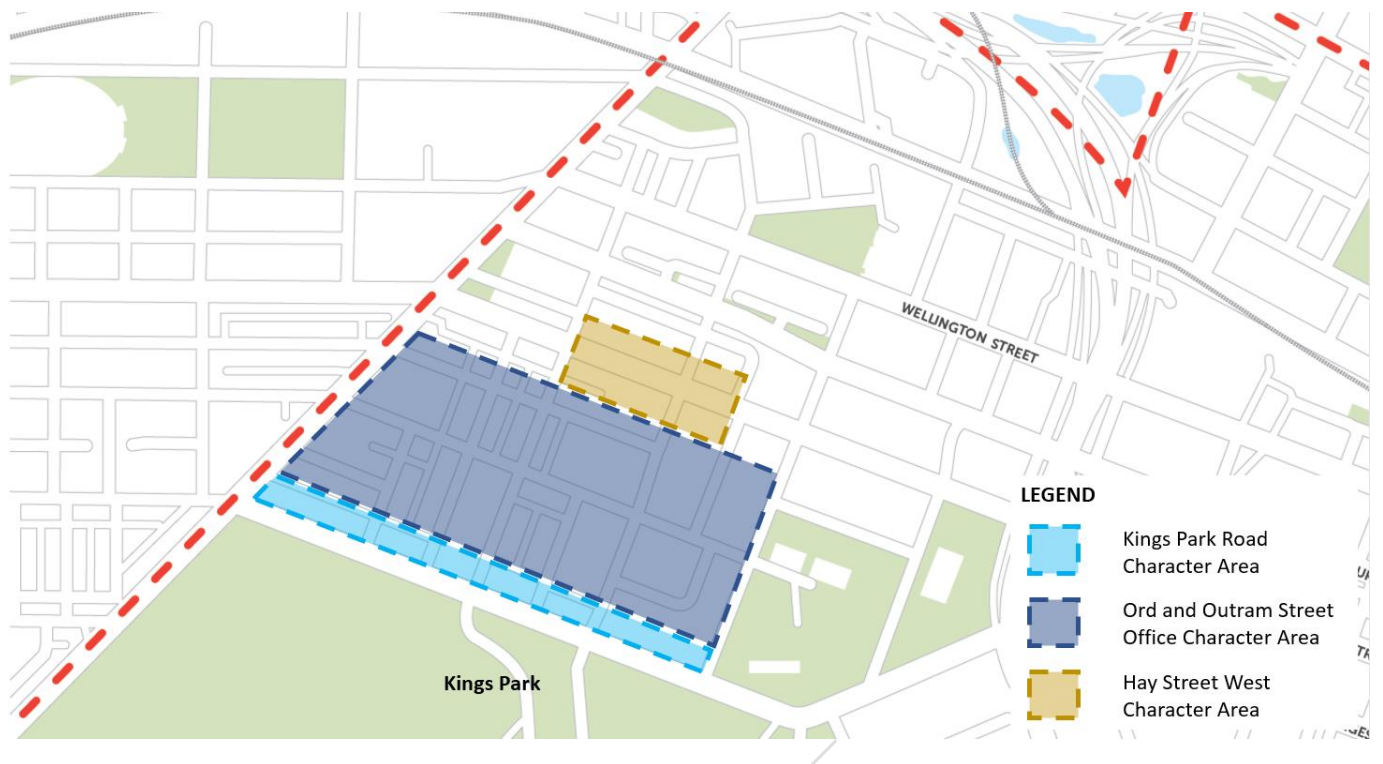


Table 15 – West Perth character areas

Character Area	Description
Kings Park Road Character area	<ul style="list-style-type: none">• Tree lined boulevard to the city fronted by prestigious residential and office buildings set in high quality in ground landscaping with views between them and to the sky.
Hay Street West Character Area	<ul style="list-style-type: none">• Fine grained development with 2 to 3 storey facades built to the street, incorporating transparent shopfronts and awnings over the street.
Ord and Outram Streets Character Area	<ul style="list-style-type: none">• Predominantly narrow lots that accommodate a blend of old and new buildings in high quality in ground landscaping with views between them and to the sky.

1.5.1.7. Culture

Parliament House and the Old Observatory are two of the most significant European historical sites within the West Perth neighbourhood. The neighbourhood also has many heritage listed residential properties as it was the first location of residential settlement for the Swan River colony.

Kings Park has a rich cultural history associated with the Whadjuk Nyoongar people and there are a number of Registered Aboriginal Sites within the park.

1.5.1.8. Open space

The neighbourhood has a high level of access to green open spaces, which make it a desirable place to live and work. Kings Park is a major public open space asset that neighbours West Perth and attracts many workers and visitors. However, its contribution to the local area could be better captured through interface and connectivity improvements.

1.5.2. Neighbourhood analysis

Strengths	Weaknesses	Opportunities	Threats
<p>Topography: West Perth offers a varied topography – with many opportunities for uninterrupted view lines towards key natural assets such as Kings Park and the Swan River.</p> <p>Kings Park: Proximity to Kings Park offers a range of passive and recreational activities to residents and visitors.</p> <p>Village Feel: West Perth has several tree-lined streets and local roads characterised by intact low-scale developments – resulting in a quieter residential feel than other Perth city neighbourhoods.</p> <p>Employment: There is a high employment base in West Perth, and a high business density – including many independent businesses offering specialised services.</p>	<p>Activation: West Perth is dominated by office and commercial buildings. This results in the area having limited activation outside of the typical 9–5 weekday business hours.</p> <p>Diversity: There is a limited range of local services and amenities such as shopping centres, dining, and community facilities.</p> <p>Narrow lots: Existing built-form controls on narrow east-west facing lots in the western section of West Perth are resulting in poor built form outcomes. However, amalgamation of lots can lead to loss of the fine grain and the garden setting character of the area.</p> <p>Severance: West Perth is not far from Central Perth however the physical barrier of the freeway and railway line create a greater ‘psychological distance’ in the mental map of visitors and pedestrians.</p> <p>Vibrancy: The low levels of residents, combined with the predominant office land use, contribute to the low levels of activation. Whilst there is some lower scale residential throughout the neighbourhood, there is not the level of density required to support greater diversity of local services.</p> <p>Road widening reserve: Along Thomas Street this has stifled redevelopment and the affected buildings are deteriorating. Clarity around the future for this road is required in order to guide planning controls that could encourage suitable redevelopment.</p> <p>Unique tourist attractions: There are few tourist, entertainment or other unique destinations within the neighbourhood to attract visitors or people outside of the catchment.</p> <p>Live local: The existing neighbourhood centre struggles to generate the activity required to support local businesses despite the large residential and commercial catchment. There is no full-line supermarket or community facilities supporting the residential population.</p> <p>Urban greening: the east side of West Perth has lower levels of in-ground landscaping, which is inconsistent with the leafy character of the neighbourhood.</p>	<p>Planning controls: West Perth has historically had a more prohibitive planning framework than other neighbourhoods with respect to plot ratio and height limits. The plot ratios are lower, but this promotes Residential/Special residential over commercial uses. There is the opportunity to revisit this to determine if these controls are achieving the vision for the area.</p> <p>Employment: The neighbourhood’s role as a secondary office precinct should be leveraged to continue to support specialised industries.</p> <p>Sense of place: This could be strengthened through improved built form and street level activation within the neighbourhood.</p> <p>Night-time economy: The introduction of new entertainment and food and beverage uses would strengthen the night-time economy – and reduce the Hay Street centre’s vulnerability to economic downturn.</p> <p>Connectivity: Pedestrian connectivity could be improved to better connect the neighbourhood to Central Perth. Activation of ground floor uses, as well as improved way-finding would also improve the pedestrian experience.</p> <p>Thomas St: There is an opportunity to allow greater intensity of development adjoining Thomas Street, which will complement the development proposed by the State within the Subiaco East Redevelopment Area/Princess Margaret Hospital.</p> <p>Kings Park: There are opportunities to better leverage street amenity and access to Kings Park.</p> <p>Adaptability: There is the potential to investigate the conversion of older building stock and under-developed sites into residential or other uses that would contribute to the offer in the area.</p> <p>Development capacity: the plot ratios provided in the current scheme could be increased to stimulate new development opportunities.</p> <p>Unique character: there are several areas with distinct built form which creates a unique character specific to the neighbourhood.</p> <p>City-West train station: City-West train station and the land to the north has significant potential for redevelopment into a vibrant transit orientated precinct.</p>	<p>Retention of ‘village feel’: As the population increases and land uses diversify within the area, there is the potential risk that the ‘village feel’ of the neighbourhood will become lost as a result of tree loss, increased congestion, poor built form outcomes and amalgamations of smaller lots.</p> <p>Encumbered land: There is a high proportion of land within the neighbourhood that is strata, which has the potential to limit redevelopment ability.</p> <p>Competing areas: Subiaco East Redevelopment Area including the Princess Margaret Hospital site will offer many future investment opportunities, which are likely to compete with West Perth.</p> <p>Heritage: There are a number of former dwellings of heritage value in West Perth that are not listed on CPS2 Heritage List – and may be lost to redevelopment.</p>

1.6. Crawley-Nedlands

1.6.1. Crawley-Nedlands neighbourhood profile

Crawley-Nedlands is located at the south western end of Perth city, bound by Kings Park to the east, the Swan River to the east and south and Broadway/Hampden Road to the west (refer to **Figure 17**). The health and tertiary education campuses of the University of Western Australia (UWA) and Queen Elizabeth II Medical Centre (QEII) occupy a significant portion of land area within the neighbourhood. The remaining areas are predominantly low-density residential, interspersed with a mix of medium and high-density student residential developments. Commercial areas are focused around Hampden Road and Broadway. The neighbourhood shares boundaries with the City of Nedlands to the west, and the City of Subiaco to the north.

Figure 17 –Crawley-Nedlands location plan



1.6.1.1. Land use

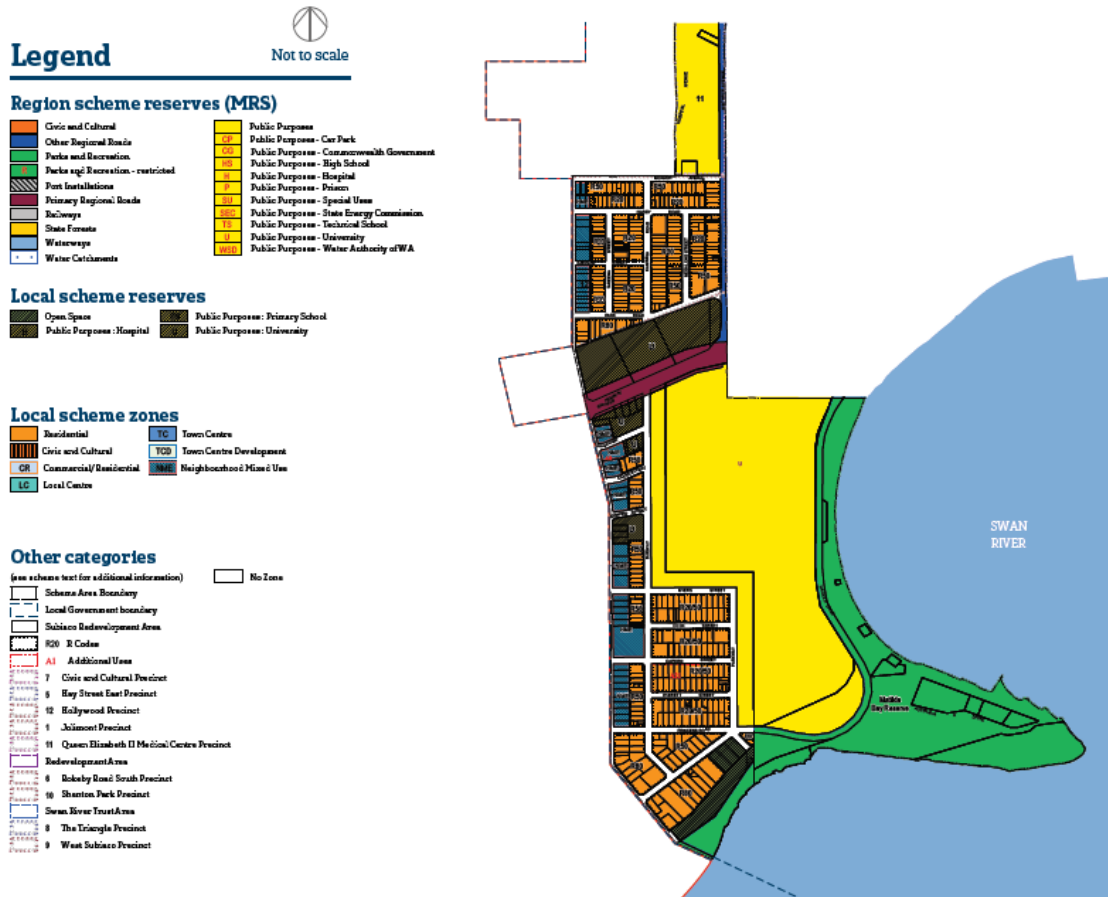
The majority of the neighbourhood was transferred to the City as part of the *City of Perth Act 2016* and is covered by the City of Subiaco’s Town Planning Scheme No. 4, comprising of Residential R20 to R80 zones, in addition to a Neighbourhood Mixed Use zone along the eastern side of Broadway. The foreshore and UWA are covered by MRS Reserves. There are also several Local Scheme Reserves.

When land was transferred to the City, QEII and a portion of the UWA (north of Stirling Highway) were transferred from the City of Nedlands. This land is covered by the City of Nedlands Town Planning Scheme No. 2, however, its application is limited as the facilities are situated on MRS Reserves. Refer to **Figure 18** below for the combined land use map.

QEII and the UWA are identified as ‘specialist centres’ in SPP 4.2 Activity Centres for Perth and Peel. QEII is recognised as the largest medical centre in the southern hemisphere – and will likely be the largest medical research and educational facility in Western Australia once redevelopment is complete. Education is also a major land use in the neighbourhood, with UWA, and associated educational facilities, occupying the largest area of land.

The neighbourhood benefits from two ‘main-street’ type activity centres, along Hampden Road and Broadway. Whilst the centres provide a mixture of shops and services that generally serve the local catchment, both centres lack a clear vision to guide their future management and growth. The local government boundary shared by the Cities of Perth and Nedlands runs through the centre of each activity centre. A shared and informed vision for the future growth of these centres will have the potential to improve connectivity, increase visitation and ensure long-term viability (Intermethod, 2018). It is notable that the neighbourhood centres lack any significant night-time economy. This is in part due to its ‘suburban’ type nature and the types of services and amenities offered.

Figure 18 – City Planning Scheme No. 2 map - Crawley-Nedlands



1.6.1.2. Population & Demographics

The Crawley-Nedlands population has increased since 2011 by approximately 970 people, equating to a 4.5% annual growth rate (refer to **Table 16**). The largest growth has been in the 18 to 24 year age bracket, where population has grown by over 40% in five years (2011–16). Due to the students attending UWA, almost half (42.1%) of the population are now aged 18–24 years – twice the proportion across the whole of Perth city (20.9%).

The presence of UWA in the area significantly impacts the household findings within the neighbourhood:

- Two-thirds of the neighbourhood’s population have never been married;
- 62% of the residents living in the area rent their property, compared to the city average of 36%;
- There is a higher percentage of grouped households compared to the Perth city average (14.1% vs. 9.5%);
- There are significant differences between household incomes within the neighbourhood with 16.3% of households earning less than \$500 per week, whilst just under a third of the population earns over \$2,000 per week;
- Almost a third (31.9%) of residents are experiencing housing stress⁶ compared to the Perth city average of 10.2% (City of Perth, 2016^a); and
- The area suffers the highest levels of housing stress when compared to other Perth city neighbourhoods.

The above statistics are not surprising, when 42% of the neighbourhood’s population is aged under 25 years and are likely students renting in the area – the majority of whom are low income earners. The high number of group households in the area is very similar to the eastern area of Northbridge close to the Central TAFE area.

Whilst the demographic of Crawley-Nedlands is quite different when compared to other Perth city neighbourhoods, so too are the pressures the neighbourhood will face in to the future.

Table 16 - Crawley-Nedlands resident and housing characteristics (Urbis, 2018)

Indicator	Crawley-Nedlands	City of Perth
Resident characteristics		
Estimated resident population	5,141	26,950
Population growth (2006-16)	1,278	10,987
Median age	24	31
High income households	30.2%	43.3%
Low income households	43.1%	28.7%
Australia-born	38.6%	35.5%
Attending tertiary education	55.6%	17.8%

⁶ Housing Stress is defined as per the NATSEM (National Centre for Social and Economic Modelling) model as households in the lowest 40% of incomes who are paying more than 30% of their usual gross weekly income on housing costs.

1.6.1.3. Dwelling characteristics

Residential density in Crawley-Nedlands is far lower than Perth city's average.

Table 17- Crawley-Nedlands dwelling characteristics (Urbis, 2018)

Indicator	Crawley-Nedlands	City of Perth
Dwelling characteristics		
Total occupied dwellings	1,554	12,282
Average household size	2.2	1.9
Dwelling density	16	31
Owner occupier households	27.2%	15.4%
Social housing	4.5%	5.3%
Households with children	27.6%	16.5%
Three-bedroom households	37%	21%
Median rent (2017)	395	425
Median dwelling price (2017)	\$540,000	\$460,000

1.6.1.4. Built environment

Large areas of land are reserved for public purposes within the Crawley and Nedlands (including QEII, UWA and river foreshore open space), resulting in large lot developments. Due to the large institutions and their operational requirements, the built-form interface with the street is fragmented in parts.

Generally, the built form within the neighbourhood is of relatively low scale in terms of building height and bulk, when compared to other Perth city neighbourhoods. This reflects its more suburban nature and is largely a result of the existing planning controls across the area. Intensity of development increases at the activity centres (Hampden Road and Broadway), with built form typology having a greater level of activated and fine grain development.

Mounts Bay Road/Stirling Highway presents a severance between the north and south, which is represented in the built form on both sides of the road. The busy arterial route creates conflict and an unpleasant streetscape for the significant number of pedestrians accessing the campus from residential campuses to the north.

1.6.1.5. Character areas

There are three character areas within Crawley-Nedlands Perth which are illustrated in **Figure 19** and described in **Table 18**.

Figure 19 – Crawley-Nedlands character areas



Table 18 – Crawley-Nedlands character areas

Character Area	Description
Mounts Bay Road Character Area	<ul style="list-style-type: none"> Tree lined residential streets with prestigious high-rise apartment buildings that sit within generous landscaped setbacks.
Northern Character Area	<ul style="list-style-type: none"> Tree lined streets with a consistent fine-grained rhythm of lots and building facades. Front setbacks that are layered with low walls/fences, sometimes carports, landscaped gardens and front verandas.
Southern Character Area	<ul style="list-style-type: none"> Street verges and building setbacks that accommodate trees and other planting that create a significant landscape character.

1.6.1.6. Local movement network

Historically, the neighbourhood was developed as a tram route, however, the loss of this movement corridor has

reduced the people-moving capacity within the area. As a result, the neighbourhood has no direct rail access, but is served by high-frequency bus routes that connect the neighbourhood to Central Perth and beyond. The functionality of the neighbourhood from a connectivity perspective is highly impacted by the neighbourhood's physical separation from the remainder of Perth city (i.e. by Kings Park) along with severances such as Stirling Highway.

1.6.1.7. Culture

Crawley-Nedlands has a strong student culture due to the presence of UWA, its student accommodation and associated buildings. Many cultural, sporting, arts and performance events attract both students and visitors to the campus, which generates increased activity at these times.

1.6.1.8. Open space

The neighbourhood benefits from environmental assets including the Swan River and its foreshore, and Kings Park. These areas not only provide significant biodiversity and environmental qualities to the area, but also offer a high level of amenity and recreational opportunity to the residents, workers and visitors in the neighbourhood.

1.6.2. Neighbourhood analysis

Strengths	Weaknesses	Opportunities	Threats
<p>Swan River: the proximity to the Swan River offers opportunity for recreational activity.</p> <p>Kings Park: like West Perth, Crawley-Nedlands is adjacent to Kings Park.</p> <p>Major institutions: these support student accommodation and residential demand linked to UWA and QEII.</p> <p>Land value: existing high land values in neighbouring suburbs of Nedlands and Shenton Park support the viability of future high-density residential development.</p> <p>Residential amenity: the neighbourhood has historically been characterised by detached housing and residential streetscapes, which results in many of the streets being safe, quiet and attractive.</p> <p>Hampden Road: is a well utilised centre with a good night-time economy concentrated around the main-street.</p> <p>Human-scale: development of the residential precincts, as well as along Hampden Road and Broadway, offer a level of relief from the larger buildings associated with the medical and education institutions.</p>	<p>Housing diversity: the neighbourhood is generally characterised by low density, single houses or flats. Limited higher-density development exists. As such there is a lack of housing choices.</p> <p>Planning controls: due to land being transferred in 2016 to the City, the City is required to implement the City of Subiaco’s Town Planning Scheme No. 4 until it is reviewed and incorporated into a new scheme. Until this time, the differing planning policies may cause a barrier to current development applications.</p> <p>Development pressure: there is pressure for redevelopment of current residential sites to accommodate alternative uses, including student housing, and higher density apartment buildings, particularly between UWA and Broadway.</p> <p>Development opportunity: unlike other neighbourhoods there are limited large development parcels. Redevelopment would likely require the amalgamation of smaller residential lots.</p> <p>Traffic congestion: there is a level of traffic congestion, particularly within the centres and around UWA.</p> <p>Interface: The interface between QEII and UWA and surrounding residential or mixed-use areas is poor.</p> <p>Streetscape: many buildings along Broadway are inward facing and have a poor visual relationship to the streetscape. This results in a poor level of activation.</p> <p>Car parking: commercial car parking rates have not been reviewed since 2008 and may not reflect the current neighbourhood context or needs.</p>	<p>Pedestrians and cyclists: these connections could be improved, which would reduce congestion and better connect the neighbourhood to key attractors.</p> <p>Coordinated vision: there is the opportunity to build a joint vision for the area that has buy-in from the community as well as QEII and UWA – through the master planning and structure plan process</p> <p>Proximity to students: the neighbourhood’s centres stand to benefit from the large numbers of staff and students visiting UWA.</p> <p>Precinct structure plan: the precinct structure plan that is required to be prepared under SPP4.2 presents significant opportunities for detailed planning and investigations to be undertaken throughout the neighbourhood.</p> <p>Unique character: there are several areas with distinct built form which creates a unique character specific to the neighbourhood.</p>	<p>UWA: the university has continued to purchase land within the neighbourhood. The intentions of the institution will remain unclear until master plan is publicly available.</p> <p>Community opposition: there is a potential disconnect between what the community and what other stakeholders envisage for the neighbourhood.</p> <p>Planning controls: while there is development pressure and demand for student housing adjacent to UWA, the current planning controls (in some instances) do not allow for student housing and a flexible and appropriate built-form response.</p> <p>Fragmented land control: due to the large institutions, there are several stakeholders involved in future development of the neighbourhood, which could hinder the City’s ability to meet community expectations.</p> <p>Shared local government boundaries: there is the need for effective strategic and project coordination with respect to land adjoining local government boundaries.</p> <p>Planning controls: some development approval applications have recently been received by the City – seeking larger scaled buildings in Crawley. Further guidance is required when a variation to the development standards is sought under clauses 28 and 42A of City of Subiaco Town Planning Scheme No. 4 to ensure good built form outcomes.</p> <p>Loss of tree canopy: the current planning controls do not protect the existing tree canopy on private land within the neighbourhood. High land values could mean that established trees are cleared during redevelopment, in the absence of adequate controls.</p> <p>Climate change: due to the foreshore location of this neighbourhood, planning should address climate change and the potential impact of a 100-year flood on the area.</p>



2. Glossary

2.1. Terms

Activity centres: focal points of commercial activity within Perth city. They comprise uses such as commercial, retail, higher-density housing, entertainment, tourism, civic-community, and day to day needs. Activity centres vary in size across Perth city and are designed to be well-serviced to public transport.

Adaptive reuse: the process that changes a disused or ineffective item into a new item that can be used for a different purpose. Sometimes, nothing changes but the item's use. This term is specifically used regarding the adaptive reuse of buildings (Department of Environment and Heritage, 2004).

Affordable housing: dwellings that households on low to-moderate incomes can afford, while meeting other essential living costs. Affordable housing includes public housing, not-for profit housing and other subsidised housing under the National Rental Affordability Scheme, together with private rental and home ownership options for those immediately outside the subsidised social housing system.

Affordable living: the principle that direct rental or mortgage payments are not the only costs that households incur. Other expenses include the consumption of water, gas and electricity, property fees and taxes, the cost of transport (to work, education and shopping) and the price of food.

Amenity: factors that combine to form the character or sense of place of an area and include the present and likely future amenity.

Applicant: a person or company who applies for development approval.

Application (also 'development application'): documentation lodged for assessment with a relevant authority regarding a proposed development.

Built environment (also 'urban environment' and 'urban space/s'): human-made structures, features, and facilities viewed collectively as an environment in which people live and work.

Built form (also 'urban fabric' and 'urban form'): has the same meaning as set out in the City's Urban Design Framework, and refers to an element of urban design that: defines streets and urban spaces; sets the scale of streets, precincts and neighbourhoods; influences the way activities in buildings interact with the public domain; and, through overshadowing from structures, influences the way in which people use urban spaces at different times of the year.

Bush Forever: is a whole-of-government policy for the conservation of regionally significant bushland on the Swan Coastal Plain portion of the Perth Metropolitan Region.

Central Perth: the area within the Central Perth neighbourhood as defined by the Local Planning Strategy spatial plans.

Civic use: has the same definition contained under the Planning and Development (Local Planning Schemes) Regulations 2015, and means premises used by a government department, an instrumentality of the State or the local government for administrative, recreational or other purposes.

Cultural Heritage significance: has the same definition as the *Heritage Act 2018* and means aesthetic, historic, scientific, social or spiritual value for individual groups within Western Australia.

Cultural landscape: has the same meaning outlined by the World Heritage Committee and refers to cultural properties or elements within a landscape that represent the combined works of nature and people.

Desktop audit: a high-level review of policies and procedures.

Design Guidelines: design policy prepared under the City of Perth planning scheme.

Diversification: The process by which an economy (i.e. a region) strives to increase the range of industries and outputs it holds, so that income can be derived from many different sources not directly related to each other. Diversification is fundamental in building economic resilience: the more diverse the industry portfolio, the less sensitive it will be to fluctuations in external drivers or markets; likewise, the greater the range of productive enterprises, the higher the likelihood that one of them will achieve above-average performance and become a competitive advantage.

Dwelling: a self-contained suite of rooms, including cooking and bathing facilities, intended for long-term residential use. Units (whether self-contained or not) within buildings offering institutional care (such as hospitals) or temporary accommodation (such as motels, hostels and holiday apartments) are not defined as dwellings.

Economic base: a business that generates employment in a community or a geographical area.

Emerging activity centres: a commercial area in a Perth city neighbourhood that has been identified under the Perth City Centres Analysis 2018 where an activity centre has begun to form but is not yet established. These centres may require additional planning provisions or specialised approaches to become a prosperous centre.

Employment self-sufficiency: the ratio (expressed as a percentage) of the total labour force (local residents who are employed or seeking employment) of a defined area relative to the total number of jobs available in that area. A percentage above 100 indicates a region has more jobs locally than resident workers.

End-of- trip facilities (also 'end-of- journey facilities'): has the same definition as CPS2 Planning Policy 5.3 Bicycle Parking and End of Journey Facilities, and means the facilities which support the use of bicycle transport by allowing cyclists the opportunity to shower and change at the beginning or end of their journey to and from work.

Fine grain: refers to:

- (a) analysis of something at a greater detail.
- (b) an element of urban design that describes a streetscape's built form pattern that is characterised by aspects such as frequent entries to buildings, continuous shopfronts, awnings over the footpath and an emphasis on glazing.
- (c) describes a built form pattern where street blocks and/or the subdivision of lots that are predominantly of a smaller scale. This built form pattern is considered to promote diversity in land uses and walkability within a neighbourhood.

Entertainment/Recreation/Cultural: Activities which provide entertainment, recreation and culture for the community and which occur in buildings and/or on land, such as passive and active sports venues, museums, amusements and gambling services.

Floor area: the same definition as provided in City Planning Scheme No. 2. Refers to the floor area of a building.

Floorplate: gross floor area of a level within a building.

Gazetted: a statutory or other notice required by law and/or Government authority that has been published in the Western Australian Government Gazette.

Government Gazette: the publication that contains formal public notices required to be published by law and Government authority, and includes the General and Special Gazettes.

Greater Perth: the Australian Bureau of Statistics Greater Capital City Statistical Area – Greater Perth. It includes the metropolitan areas of Perth and Peel.

Green infrastructure: the network of interconnected and multifunctional green spaces, elements, corridors, water systems such as surface and groundwater systems that are integrated within the city's urban fabric.

Green network (also 'green infrastructure network'): Perth city's public and private green spaces and their linkages. The green network includes Bush Forever sites, national and regional parks, district and local parks,

sports fields, school grounds, community facilities, golf courses, foreshores and riverfront areas connected by streetscapes, trails, cycle paths and pedestrian footpaths.

Health/Welfare/Community Services: Government, government-subsidised and non-government activities that provide the community with a specific service, including hospitals, schools, personal services and religious activities.

High frequency transit corridor: where public transport services are available at a high frequency, usually every five minutes during peak times and every 15 minutes outside of peak times.

Household composition: has the same definition as the Australian Institute of Health and Welfare and means the composition of the household based on the relationship between household members.

Housing continuum: a concept used by the WA State Affordable Housing Strategy 2010-2020 to describe the affordable housing system in Western Australia. It presents the range of housing options available to different households on a continuum with crisis accommodation (for people at risk of homelessness) at one end and unsubsidised home ownership at the other end.

Housing stock: the total number of dwellings within a geographical area.

Industrial: land zoned for industrial use under the Metropolitan Region Scheme to provide for manufacturing industry and the storage and distribution of goods and associated uses.

Infill (also 'urban infill' or 'infill development'): the redevelopment of existing urban areas at a higher density than currently exists.

Inner-city: refers to Perth city and neighbouring localities.

Integrated transport planning: a 'vertical' and 'horizontal' approach to managing a movement network. The 'vertical' element acknowledges the needs and influences each tier of government has on a movement network, and the collaboration required to ensure a functional and dynamic movement network that supports prosperous communities. The 'horizontal' element considers key transport issues such as transport system interdependencies, interactions between transport and land use, transport safety, traffic congestion, parking, travel demand management and accessibility that influence the planning and provision of sustainable transport systems.⁷⁸

Investigation area: land within Perth city that will be subject to further planning investigation/s to consider its suitability, and the area of land to be identified, for a possible change of use.

Knowledge-based economy: any economy based on creating, evaluating and trading knowledge. It describes a trend in advanced economies towards a greater dependence on knowledge, information and high skill levels.

Knowledge-based industries: industries that are in the business of the production, distribution and use of knowledge and information.

Labour force: the total number of local residents who are participating in the labour force and considers people employed plus those seeking work.

Land-use planning: the process of regulating and managing the use of land by government in an efficient and ethical way, to prevent land-use conflicts and plan for the needs of the community.

Last kilometre freight: a term used to refer to the final leg of the journey of goods and services from a depot to the destination for consumption.

Liveable (also 'Liveability'): encompasses the many characteristics that make a place desirable for people to live. Liveability means a community which is *'safe, attractive, socially cohesive and inclusive, and environmentally*

⁷ WAPC, Guidelines for the preparation of integrated transport plans, 2012

⁸ City of Perth, Transport strategy, 2016

*sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities.*⁹

⁹ Lowe M, Whitzman C, Badland H, Davern M, Hes D, Aye L, et al. Liveable, healthy, sustainable: What are the key indicators for Melbourne neighbourhoods? Melbourne: Place, Health and Liveability Research Program, University of Melbourne, 2013.

Live-local (also ‘live-locally’ and ‘living locally’): the ability for residents within a neighbourhood to access essential services such as grocery shops, medical services, childcare and education facilities, along with green space, community facilities and areas of high amenity, within a pedestrian dominated walkable catchment¹⁰.

Live-local services: essential services such as grocery shops and medical facilities that are available to residents within a walkable catchment of their city neighbourhood.

Local planning strategy: local-level planning frameworks adopted by local governments across WA to provide strategic direction for land use and development within a municipal area. A local planning strategy is used to guide or inform the content of statutory city or local planning schemes.

Local planning scheme: are detailed planning schemes developed by local governments to manage the range of permitted land uses within specified locations. For localities covered by the Metropolitan Region Scheme, the Peel Region Scheme or the Greater Bunbury Region Scheme, local planning schemes must be consistent with the provisions identified within the relevant region scheme.

Model scheme text: the format and wording that all local planning schemes are required to follow, as set out under Schedule 1 – Model provisions for local planning schemes of the Planning and Development (Local Planning Schemes) Regulations 2015.

Native Title: the recognition by Australian law of Aboriginal and Torres Strait Islander people’s traditional rights and interests in land and waters held under traditional law and custom.

Net lettable area (also ‘floorspace’): has the same definition as the Planning and Development (Local Planning Schemes) Regulations 2015, and means the area of all floors within the internal finished surfaces of permanent walls but does not include the following areas —

- (a) stairs, toilets, cleaner’s cupboards, lift shafts and motor rooms, escalators, tea rooms and plant rooms, and other service areas;
- (b) lobbies between lifts facing other lifts serving the same floor;
- (c) areas set aside as public space or thoroughfares and not for the exclusive use of occupiers of the floor or building;
- (d) areas set aside for the provision of facilities or services to the floor or building where those facilities are not for the exclusive use of occupiers of the floor or building.

Node: refers to-

- (a) a focal point of increased activity within a neighbourhood. An activity node can refer to focal points for specific activities such as: retail, service or other commercial activities; community facilities; or mass transit and public transport connections.
- (b) an area designated within public open space for increased activation or linkages.
- (c) assets within the city’s green infrastructure network that are defined by their primary ‘benefit’ (community health and wellbeing, energy resilience, water sensitivity, biodiversity, waste management or climate adaptation) and are physically connected by green links or green corridors.

Noise attenuation: the process of reducing the impact of noise generated from either within or externally to a room or entire building. This can be done through the installation of materials such as insulation that absorbs and diffuses the noise.

Office/Business: Administrative, clerical, professional and medical offices are activities which do not necessarily require the land area/floor space or exposure of other land uses. Although offices require building and parking facilities, these needs are quite distinct from those of commercial uses and service industries.

Other Retail: Many of these activities are not normally accommodated in a shopping centre. By virtue of

¹⁰ Barton, H, Grant, M & Guise, R, Shaping neighbourhoods: for local health and global sustainability, London; New York: Routledge, 2010.

their scale and special nature the goods of these activities separate them from the Shop/Retail category (for example car sales yard or carpet showroom).

Owner-occupiers: a person who owns the dwelling they live in.

Peer-to-peer economy: a decentralised economic model whereby two individuals interact to buy or sell goods and services directly with each other, without an intermediary third-party, or without the use of a company of business.

Perth city: land within the City of Perth local government area which expanded on 1 July 2016 to include parts of Crawley and Nedlands (previously in the Cities of Subiaco and Nedlands). This includes a total area of approximately 13.85 square kilometres and is also commonly referred to in the document as 'the city'.

Planning controls: the devices, specifically statutory controls, used to managing the development of land and buildings.

Planning system: the broad institutional and regulatory arrangements that govern land use planning in Western Australia.

Plot ratio: the same definition as the City Planning Scheme No. 2, and means the ratio of the floor area of a building to the area of land within the boundaries of the lots on which that building is located.

Plot-ratio controls: a type of density and built form control for future development where a maximum plot-ratio is applied to a designated area under a planning scheme.

Precinct: has the same definition as the City Planning Scheme No. 2, and means an area within a neighbourhood or which may cross over neighbourhood boundaries and is of limited size having –

- (a) A similar use or other characteristic; and
- (b) Specified boundaries.

Price point: a point on a scale of possible prices at which something might be marketed.

Primary resource sector: economic sector involved in the extraction and collection of natural resources, such as iron ore and timber, as well as activities such as agriculture and fishing.

Public realm: the space around, between and within buildings that are publicly accessible, including streets, piazzas, parks and open spaces. These areas and settings support or facilitate public life and social interaction.

R-Codes: State Planning Policy 7.3 – Residential Design Codes.

Registered Aboriginal sites: a place which has been assessed as meeting Section 5 of the *Aboriginal Heritage Act 1972*.

Rescinded (in terms of policy): a policy, procedure or decision which has formally been reversed or cancelled by a resolution of Council.

Residential density targets: were established in Directions 2031 and Beyond and require new areas and structure plans under review to adhere to a target of 15 dwelling units per gross hectare of urban zoned land, therefore excluding land within all other zones and reserves under the applicable region scheme. Also refer to residential site density.

Saltmarsh: a plant species/community associated with the Swan Coastal Plain and Swan River.

Scheme text: text of a local planning scheme referred to in Part 2 s.8 of the Planning and Development (Local Planning Schemes) Regulations 2015.

Scheme use area (or 'land-use zone'): an area, identified under City Planning Scheme No. 2, City of Nedlands Town Planning Scheme No. 2 or City of Subiaco Town Planning Scheme No. 4 that is classified and divided into scheme use areas or zones, with the exception of reserves, as shown on an associated city or local planning

scheme map. Appropriate uses are prescribed for each scheme use area or zone under the respective scheme.

Servicing: the supplying or supplier of utilities or commodities, as water, electricity, or gas, required or demanded by the public.

Shop/Retail: any activity which involves the sale of goods from a shop located separate to, and/or in, a shopping centre other than those included in Other Retail.

Short-term accommodation: has the same definition as City Planning Scheme No. 2 and Planning and Development (Local Planning Scheme) Regulations 2015, and means premises used for accommodation that may be occupied by the same person/s for a maximum period of three months within any twelve month period, and are not subject to residential tenancy agreements (residential leases).

Sleeve: an architectural element of a building, where a strip of apartments or other active uses is built on the outer face of a podium, usually where facing the street or public realm, to remove any visibility to internal car parking areas.

South West Region: the area of land located in the south-western corner of Australia and covers an area of nearly 24,000 square kilometres.

Spatial Plans: plans prepared to spatially demonstrate the strategies and actions of the Local Planning Strategy.

Staying activity (also 'staying activities') include a range of participatory activities which encourage people to stay or remain in a public place/space.

Streetscape: is a term used to define the character, built form, view or scene of a street, especially in a city or urban setting.

Structure plans: plans for the coordination of future subdivision and zoning of an area of land, including the provision of transport networks, public open space, utility and service networks, urban water management, development standards and community infrastructure.

Sustainability: meeting the needs of current and future generations through the integration of environmental protection, social advancement and economic prosperity.

Sustainable urban existence (also 'sustainable urban growth'): a well-planned and coherent settlement pattern, along with carefully managed urban growth and change that delivers wider social, economic and environmental objectives.¹¹

Transit-oriented development: an urban development around public transport stations that increases use of public transport. The aim is to locate moderate-to high intensity commercial, mixed use, community and residential development close to train stations and/or transit corridors to encourage public transport use over private vehicles.

Urban tree canopy (also 'canopy cover'): has the same definition as the City's Urban Forest Plan, and means the percentage of urban land covered by tree canopy when viewed from above.

Urban consolidation: refers to urban development processes such as infill and increased densities, and/or the logical extension or 'rounding off' of existing urban and industrial areas to more effectively utilise existing social, service and transport infrastructure.

Urban expansion (also 'urban growth'): the rate at which the population of an urban area increases.

Urban forest: has the same definition as the City's Urban Forest Plan, and is broadly refers to the collection of green spaces, trees and other vegetation that grows within an urban area, on both public and private land.

Urban heat island: has the same definition as the City's Urban Forest Plan, and means an urban area which

¹¹ State Planning Policy 3 Urban Growth and Settlement, 2006.

experiences elevated temperatures compared to their outlying surroundings, creating an 'urban heat island'.

Urban planning (also 'town planning'): the process of managing the development of land and buildings.

Urban settlement: is a concentrated settlement that constitutes or is part of an urban area.

Urban village: urban development typically characterised by medium to high density housing, mixed use zoning, fine grain built form, good public transit and an emphasis on walkability and public space.

Urban-zoned: land reserved and zoned Urban under the Metropolitan Region Scheme.

Value capture: the process of retaining some percentage of the value provided in every transaction.

Wayfinding: information systems, such as signage or tactile paving that guide people through a physical environment and enhance their understanding and experience of the space.

Weighted population density: the mean of the densities of sub-areas of a larger area, weighted by the populations of those sub-areas.

2.2. Acronyms

ABS: Australian Bureau of Statistics

BCA - Building Code of Australia

BUWM: Better Urban Water Management

CPC: City of Perth Committee

CPPC: Central Perth Planning Committee

CPS2: City of Perth City Planning Scheme No. 2

DAA: Department of Aboriginal Affairs

DevWA: Development WA

DFES: Department of Fire and Emergency Services

DOH: Department of Health

DPLH: Department of Planning, Lands and Heritage

DOT: Department of Transport

DWER: Department of Water and Environmental Regulation

DBCA: Department of Biodiversity, Conservation and Attractions

DWMS: District Water Management Strategy

LGA: Local Government Area

LPS26: Local Planning Scheme No. 26 – Normalised Redevelopment Areas

LWMS Local Water Management Strategy

MHI: Municipal Heritage Inventory

OBRM: Office of Bushfire Risk Management

SPC: State Planning Committee

SPP: State Planning Policy

TPS4: Town Planning Scheme No. 4

UWA: University of Western Australia

QEII MC: Queen Elizabeth II Medical Centre

UWMP: Urban Water Management Plan

WAPC: Western Australian Planning Commission

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