OAKDEN AND GILLES PLAINS STRUCTURE PLAN SOCIAL INFRASTRUCTURE ASSESSMENT

Prepared for: Date:
Renewal SA 05.08.2019



Proprietary Information Statement

The information contained in this document produced by Holmes Dyer Pty Ltd is solely for the use of the Client identified on the coversheet for the purpose for which it has been prepared and Holmes Dyer Pty Ltd takes no responsibility to any third party who may rely upon this document.

All rights reserved. No section or element of this document may be removed from this document, reproduced electronically stored or transmitted in any form without the written permission of Holmes Dyer Pty Ltd.

Document Control

Revision	Description	Author	Date
v1	Draft for Client Review	Holmes Dyer	15.05.2019
v2	Final	Holmes Dyer	05.08.2019

Approved by: Not yet approved Date: Not yet approved



Contents

1. II	NTRODUCTION	2
1.1.	Purpose	2
1.2.	STRUCTURE PLAN AREA	2
1.3.	STUDY AREA FOR THE SOCIAL INFRASTRUCTURE ASSESSMENT	3
1.4.	REPORT STRUCTURE	4
2. R	ROLE AND FUNCTION	6
2.1.	Overview	6
2.2.	DRIVERS OF CHANGE	6
2.3.	KEY ISSUES AND CONSIDERATIONS	6
2.3.1.	. Walkable Neighbourhoods	6
2.3.2.	. HEALTH AND SOCIAL CONNECTION	7
2.3.3.	. Sport and Recreation	7
2.3.4.	. Open Space Provision	8
2.3.5.	. Open Space Function	8
2.3.6.	. Recreation Trails and Green Connections	8
2.3.7.	. COMMUTER TRAVEL	9
2.3.8.	. BIODIVERSITY	9
2.3.9.	. Access to Local Shops and Services	9
2.3.10	O. COMMUNITY FACILITIES AND PLACES	10
2.3.1	HEALTH CARE, AGEING AND DISABILITY SERVICES	10
2.3.12	2. EDUCATION AND TRAINING	10
2.3.13	3. Urban Heat Effects	11
3. P	POPULATION AND GROWTH	13
3.1.	Overview	13
3.2.	POPULATION CHARACTERISTICS	14
3.2.1.	. Age Profile	14
3.2.2.	. Household Types	16
3.2.3.	. DWELLING TYPES	16
3.2.4.	. DWELLING AND ALLOTMENT TRENDS	17
3.2.5.	. CULTURAL DIVERSITY	19
3.2.6.	. SEIFA INDEX	19
3.3.	POPULATION PROJECTIONS	21
3.3.1.	. Projected Residential Development Densities and Yields	21
3.3.2.	. PROJECTED POPULATION FOR THE STRUCTURE PLAN AREA	22
4. S	SOCIAL INFRASTRUCTURE ASSESSMENT	25

HOLMES DYER

4.1.	OVERVIEW	25
4.2.	EXISTING SOCIAL INFRASTRUCTURE CAPACITY ASSESSMENT	25
4.2.1.	. AGED CARE ACCOMMODATION	25
4.2.2.	. CHILDCARE, PRESCHOOL AND EDUCATION FACILITIES	26
4.2.3.	. COMMUNITY FACILITIES	29
4.2.4.	. RETAIL AND GENERAL SERVICES	30
4.2.5.	. HEALTH AND MEDICAL FACILITIES	31
4.2.6.	. EMERGENCY SERVICES	31
4.2.7.	. Transport Connections	32
4.3.	OPEN SPACE AND RECREATION	33
4.3.1.	. OPEN SPACE	33
4.3.2.	. Sports and Recreation	35
5. S	STRUCTURE PLAN OPPORTUNITIES	38
5.1.	Overview	38
5.2.	NEW SOCIAL INFRASTRUCTURE	38
5.2.1.	. AGED CARE ACCOMMODATION	38
5.2.2.	. CHILDCARE, PRESCHOOL AND EDUCATION FACILITIES	38
5.2.3.	. RETAIL AND GENERAL SERVICES	38
5.2.4.	. HEALTH AND MEDICAL FACILITIES	38
5.3.	OPEN SPACE AND RECREATION	39
5.3.1.	. Location and Provision	39
5.3.2.	. FUNCTION	40
5.3.3.	. Recreational Trails	40
5.4.	DESIGN FRAMEWORK	41
5.4.1.	. Social Infrastructure	41
5.4.2.	. OPEN SPACE	41
6. R	REFERENCES	44
App	pendices	
	ndix 1. Social Infrastructure Map	
	ndix 2. Open Space Mapndix 3. Open Space Map (400m playground catchment)	
, wpcli	Tain of open space wap (Tooth playground caterillicity	



Figures

Figure 1.	Oakden and Gilles Plains Structure Plan Area	3
Figure 2.	Study Area	4
Figure 3.	Northgate-Oakden-Gilles Plains Statistical Area 2 (SA2)	13
Figure 4.	Change in Selected Service Age Groups for Northgate – Oakden – Gilles Plains SA2, 2006 to 2016	15
Figure 5.	Precinct Location Plan	21
Figure 6.	Structure Plan Area within the Port Adelaide Enfield – East SLA	22
Figure 7.	Existing open space for the Structure Plan area and surrounds	33
Figure 8.	Existing open space (400m playground catchment) within the study area and surrounds	34
Figure 9.	Photographs Hedge Row Reserve	39
Tables		
Table 1.	Total Population (Usual Residence), Northgate-Oakden-Gilles Plains SA2	14
Table 2.	Service Age Groups, SA2 compared with PAE LGA and Greater Adelaide, 2016	14
Table 3.	Household Types - Family Composition, SA2 compared with PAE LGA and Greater Adelaide, 2016.	16
Table 4.	Dwelling Types SA2 compared with PAE LGA and Greater Adelaide, 2016	16
Table 5.	Dwelling types as a proportion of total dwellings 2006-16, Northgate-Oakden-Gilles Plains SA2	17
Table 6.	Trends in lot size and dwelling size over time	18
Table 7.	Top 5 overseas countries of birth* SA2 compared with PAE LGA and Greater Adelaide, 2016	19
Table 8.	Index of Relative Socio-economic Disadvantage, City of Port Adelaide Enfield, SEIFA	20
Table 9.	Yields for various precincts	22
Table 10.	Projected population by 5-year age group for the Structure Plan area	23
Table 11.	Aged Care Facilities within Northgate – Oakden – Gilles Plains SA2	25
Table 12.	Aged Care Facilities within proximity (4km) to the Structure Plan area	25
Table 13.	Childcare, Preschools and OSHC within the Northgate-Oakden-Gilles Plains SA2	27
Table 14.	Childcare, Preschools and OSHC within proximity of Northgate-Oakden-Gilles Plains SA2	27
Table 15.	Primary and Secondary Schools	28
Table 16.	Community Facilities	30
Table 17.	Health and Medical Services	
Table 18.	Sporting and Recreation Venues	
Table 19.	Application of Council's Open Space Plan 2013 to Open Space Provision	40



1 - Introduction



1. Introduction

1.1. Purpose

Renewal SA engaged Holmes Dyer Pty Ltd, together with Arup and Alexander Symonds, to prepare the Oakden and Gilles Plains Structure Plan.

This assessment forms part of the investigations to inform the Structure Plan and a rezoning of the land at Oakden and Gilles Plains.

Much (but not all) of the land under investigation is under the control of the State Government, notably SA Health, Department of Human Services (DHS) and Department of Environment and Water (DEW). A significant portion of this land is now surplus to requirements and may be divested for development by others.

This study provides a summary of current existing social infrastructure within the Oakden and Gilles Plains area and the likely future needs of social infrastructure and provision of open space.

1.2. Structure Plan Area

The Structure Plan area is located approximately 10 kilometres north-east of the Adelaide CBD, in the local government area of Port Adelaide Enfield. It is generally bound by Grand Junction Road to the north, Blacks Road to the east, Fosters Road to the west, and the interfacing residential area to the south, in the suburbs of Oakden (part of) and Gilles Plains (part of).

The Structure Plan area comprises approximately 110 hectares of land and represents one of the most significant infill development opportunities within the inner urban area.

It is expected that the area could support a new community of around 2,000 homes.

The land is currently zoned Residential, Mixed Use and District Centre in the City of Port Adelaide Development Plan (Consolidated 6 February 2018).

The Structure Plan area is shown in Figure 1 below.





Figure 1. Oakden and Gilles Plains Structure Plan Area

1.3. Study Area for the Social Infrastructure Assessment

The study area for the social infrastructure assessment is generally bound by:

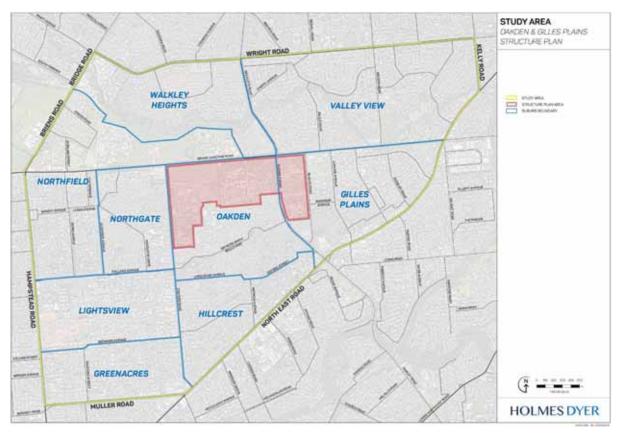
- North: Wright Road (Valley View and Walkley Heights)
- East: Kelly Road (Valley View)
- West: Bridge Road (Walkley Heights), Briens Road (Northfield) and the main road environment of Hampstead Road (Northfield, Lightsview and Greenacres)
- South: main road environments of Muller Road (Greenacres) and North East Road (Hillcrest, Gilles Plains and Valley View).

The study area generally takes in the suburbs of Walkley Heights, Northfield, Northgate, Lightsview, Greenacres, Oakden, Gilles Plains, Hillcrest and Valley View as well as suburbs either side of the main road environments of Hampstead Road, Muller Road and Main North Road.

Key features include Northgate Shopping Centre, Greenacres Shopping Centre, Valley View Shopping Centre, Gilles Plains Shopping Centre, public and private primary and secondary schools and significant sports fields and open space. The study area is shown in Figure 2 below.



Figure 2. Study Area



1.4. Report Structure

The investigation findings are reported in five main sections:

- 1. Introduction: outlines the context for this investigation.
- 2. Role and Function: reviews background information and state and local planning frameworks that are relevant in the context of the Oakden and Gilles Plains Structure Plan area.
- **3. Population and Growth:** provides information about population and growth characteristics and implications for social infrastructure in the Structure Plan area.
- **4. Social Infrastructure Assessment:** assesses and analyses existing social and community services against relevant guides to determine likely future needs.
- 5. Structure Plan Opportunities: identifies opportunities for social infrastructure in the Oakden and Gilles Plains Structure Plan area to inform the structure planning process.



2 - ROLE AND FUNCTION



2. Role and Function

2.1. Overview

A range of State Government and Port Adelaide Enfield Council strategic documents have informed this social infrastructure analysis for the Structure Plan area. This section provides a summary of drivers of change and key issues and considerations for the structure planning process.

2.2. Drivers of Change

The 30 Year Plan for Greater Adelaide Update 2017 (The 30 Year Plan) outlines how Adelaide should grow to become more liveable, competitive and sustainable. The 30 Year Plan supports a new urban form with an emphasis on revitalisation of existing urban areas and creating neighbourhoods that are: enjoyable places to live; improve access to public transport, community services, open space and employment; demonstrate good design; and are more compact, walkable communities.

This focus on creating great places to live is reinforced in the City of Port Adelaide Enfield, City Plan 2030, which seeks 'Place Making: A City where people love to be' as one of five key outcomes. Another key outcome: 'Community: A City that supports community wellbeing,' focuses on health, wellbeing and inclusion directly relevant to social infrastructure provision. To test community perception and satisfaction with aspects of its City Plan, the City of Port Adelaide Enfield undertakes an annual community survey. In response to the 2018 survey, Council has identified as a priority, 'building a strong connection to place and equitable access and participation across the City,' including 'connection to local places and neighbourhoods' and 'access to information, places, and arts and cultural activities across the city.'

South Australia's new planning system under the *Planning, Development and Infrastructure Act 2016* (PDI Act) provides the statutory planning instruments to support delivery of key planning outcomes. At the highest order, State Planning Policies are now in place and will be given effect through the Planning and Design Code (which will ultimately replace Development Plans). The Oakden and Gilles Plains Structure Plan is informed by the Principles of Good Planning under the PDI Act and seeks to apply State Planning Policies spatially to the Structure Plan area as the most contemporary policy available. This assessment has had regard to *State Planning Policy 4: Biodiversity*.

2.3. Key Issues and Considerations

2.3.1. Walkable Neighbourhoods

The 30 Year Plan calls for healthy, walkable neighbourhoods where people can afford to live, learn, work and play, that offer a wide range of services that can easily be reached on foot or by bicycle, including schools, health care, shops, parks, sports facilities and public transport. The Plan speaks to creating 'streets for people' so that streets are green and leafy 'places' to spend time as well as providing cycling and walking friendly 'links.' The concept of 'link' (fast, efficient and minimise travel time) and 'place' (encourage people to linger, stay longer and extend time spent in an area) is used to describe the dual function of streets. Walkable communities are intended to be vibrant places with opportunities for physical activity, connection with nature, social interaction, options for active travel



and public transport use, and diverse housing options. The assessment¹ of the Structure Plan area is that it is currently not walkable (noting the surrounding areas of Walkley Heights, Northgate and Oakden are also not particularly walkable. This indicates a strong need for non-residential land uses accessible on foot in the Structure Plan area.

2.3.2. Health and Social Connection

Most respondents to the City of Port Adelaide Enfield² community survey indicated they feel a part of their local community (although this was among the lower satisfaction ratings across the City) and identified as feeling healthy. The Structure Plan area provides an opportunity to deliver a range of social infrastructure and open space to build on this sense of identity and cohesion in the community. This includes community infrastructure designed and located to ensure safe, inclusive and convenient access for communities and individuals of all demographic groups and levels of ability.

Most residents living around the Structure Plan area were born in Australia although this proportion has declined from 2006 to 2016 (69% to 61%). Of residents born overseas there are increasing proportions of the population from India (159 persons (1%) in 2006 and 1,317 (5%) in 2016) and China (163 persons (1%) in 2006 and 907 persons (4%) in 2016). There is an opportunity for new social infrastructure and open space to deliver family-oriented and culturally-based facilities and open spaces to benefit the multi-cultural community including opportunities for young people, children and families.

2.3.3. Sport and Recreation

The Structure Plan area includes the Adelaide City Football Club and Soccer Pitches which is categorised as a regional level sports facility. This facility is operated under lease but is otherwise available for community use (outside of match days). Supporting the viability of existing clubs is a key theme of the City of Port Adelaide Enfield Open Space Plan 2013 which also identified formal sports and recreation, including soccer (while popular), as being adequately catered for. The exception to this was for indoor recreation. A new indoor recreation centre at Lightsview (to replace the former Hillcrest stadium) and shared use arrangements with the Hillcrest Primary School indoor sports court are expected to meet demand. There is an opportunity for a future residential community in the Structure Plan area to support investment in these facilities further underpinning their viability. Council's Sports Development Plan 2017-2022 notes with strong population growth new developments will require access to high-quality sporting facilities to enable new residents to participate in sport. The land at Oakden and Gilles Plains is identified as an area potentially appropriate for sporting facilities provision matched to the new population subject to demand. Other sporting locations identified in the Sports Development Plan 2017-2022 in near proximity of the Structure Plan area include Harry Wierda Reserve, Oakden (netball, basketball and tennis courts), and Vickers Vimy Reserve, Northgate (cricket and soccer), as well facilities across various school sites including Cedar College, Heritage College, St Paul's College and Wandana Primary School.

 $^{^{}m 1}$ Oakden and Gilles Plains Structure Plan, Technical Studies, May 2019, prepared by Arup

 $^{^{\}rm 2}$ Annual Community Survey, 2017 and 2018, City of Port Adelaide Enfield.



2.3.4. Open Space Provision

The City of Port Adelaide Enfield is reported to have relatively good open space provision of approximately 6 hectares per 1,000 people with much of this space used for wetland, drainage and aesthetic purposes.³ The proportion of 'usable' open space across the City is reported as approximately 3.6 hectares per 1,000 people with provision in the order of 4.4 hectares per 1,000 people in and around the Structure Plan area.⁴ Council uses a guide of 3.5 hectares per 1,000 people for provision of recreation and sporting open space (excluding natural areas and drainage) which is higher than historically accepted levels of open space provisions (2.83 ha per 1,000 people). While City-wide provision is adequate, Council considers some suburbs are lacking in open space and that such a gap exists in the Structure Plan area.

Council's Open Space Guidelines state that new development areas (of between 7 and 10 hectares) should have at least one usable recreation park (at least 0.5 hectares in size) that provides a 'heart' or destination for the 'community;' and that other open space should generally be a minimum of 0.25 hectares in size and at least 20 metres in width. *The 30 Year Plan* indicates that all dwellings should have at least one option to access public open space within 400 metres (an approximate 5-minute walk).

2.3.5. Open Space Function

At a City-wide level, the *Open Space Plan 2013* notes demand for play spaces, open areas for casual sport, walking and bike tracks, places to walk dogs and spaces to gather and celebrate cultural heritage. This is supported by *Public Health and Community Wellbeing Plan 2015-2020* which seeks open space that caters for young children, families and the older population. Council's *Animal Management Plan 2018-2023* indicates Council may also be seeking spaces to walk and exercise dogs. Provision of diverse areas of quality open space is consistent with the intent of *The 30 Year Plan*. Council has indicated a preference for large, flat, areas of informal open space for casual sport in the Structure Plan area. Abutting the southern boundary of the Structure Plan area is Hedge Row Reserve which provides an opportunity to expand this open space area. The former oval within the Strathmont Centre site also provides an opportunity for a central, flat and highly usable open space in the Structure Plan area. State and Local Government policies support a diverse range of open spaces including functional spaces such as greenways and for stormwater management.

2.3.6. Recreation Trails and Green Connections

Less than half a kilometre north of the Structure Plan area is the Dry Creek off-road linear trail and within 2.5km south is the River Torrens Linear Trail with an opportunity to create a future link with these trails through the Structure Plan area. Future development of the Structure Plan area will also require a network of open spaces to be provided. *The 30 Year Plan* calls for walkable and cycling connections to such community infrastructure via tree-lined streets for comfort and amenity. There is an opportunity for the internal street network and existing drainage lines to provide linking greenways within the Structure Plan area and to the broader network. Council's *Local Area Bicycle 2015-2020* recommends a 40kph speed limit for local streets through Oakden and Hillcrest

³ City of Port Adelaide Enfield Open Space Plan 2013.

⁴ Based on assessment of Statistical Local Area Port Adelaide Enfield East



(bounded by North East Road, Sudholz Road, Fosters Road and Grand Junction Road) to encourage cycling connectivity. This is supported by the parallel investigation on transport⁵ for the Structure Plan area.

2.3.7. Commuter Travel

The 30 Year Plan calls for development within 400 metres (approximate 5-minute walk) to a high frequency bus stop or 800 metres (approximately 10-minute walk) to a train station, tram or O-Bahn stop. Much of the Structure Plan area is serviced by public transport; however, the simple presence of a route does not provide a good indication of frequency or how useful a public transport service it provides in terms of connecting to useful destinations (such as employment). Much of the Structure Plan area does not have access to a bus stop within a 5-minute walk (however, this is largely a function of the current lack of walking connectivity). The bus network surrounding the Structure Plan area is largely low frequency and due to the existing lack of development, routes to the east and west of the site do not currently stop adjacent the site.

2.3.8. Biodiversity

A biodiversity survey of the Strathmont Centre site dated 2010 identified a small area of regionally rare plant species in the north-east corner of the site (noting recent fires in the area may have affected this assessment), and generally noted the importance of tree hollows for some native bird species. Council's *Biodiversity Management Plan 2016 – 2020*, has not identified any areas of biodiversity significance within the Structure Plan area. Valuing our natural environment and enhancing biodiversity is a key theme of *The 30 Year Plan* and is addressed as *State Planning Policy 4: Biodiversity* which focus on protecting areas of high biodiversity value. Outside of areas of such areas, the focus is on ensuring people have access to natural places for health, well-being and recreation and the possible re-introduction of components of biodiversity.

2.3.9. Access to Local Shops and Services

The Structure Plan area is located approximately 100 metres from the Northgate Shopping Centre to the south, approximately 1.6 kilometres from the Greenacres Shopping Centre to the south, approximately 300 metres from the Gilles Plains Shopping Centre to the south east, and approximately 1.2 kilometres to the commercial strip development along North East Road to the south. *The 30 Year Plan* identifies that walkable neighbourhoods as part of the new urban form should have near access to an activity centre which includes local shops, services and a range of community facilities within 800 metres (approximately 10-minute walk) and a range of Employment Centres (zoned land) within 5 kilometres (approximately 20-minute cycle). Based on the location of existing centres, there is opportunity for a new activity centre in the Structure Plan area. This is consistent with Council's *Economic Development Plan 2020* which calls for new development and community renewal projects to incorporate neighbourhood retail and commercial precincts and link them with public transport systems and networks. The need to build links between the retail sector and training providers (such as TAFE SA) is also identified.

⁵ Oakden and Gilles Plains Structure Plan, Technical Studies, May 2019, prepared by Arup.

 $^{^{\}rm 6}$ Oakden and Gilles Plains Structure Plan, Technical Studies, May 2019, prepared by Arup.



2.3.10. Community Facilities and Places

The City of Port Adelaide Enfield community survey⁷ indicates that the community is generally satisfied with access to places and services across the City, and access to information and organisations. However, there was a perceived under-servicing of the north-eastern part of the City for opportunities to participate in and experience local arts and cultural activities. The City of Port Adelaide Enfield *Economic Development Strategy 2020* seeks expansion of community assets and meeting places for culturally diverse community.

2.3.11. Health Care, Ageing and Disability Services

The health care and community services sector is one of the fastest growing sectors in Australia.³ The City of Port Adelaide Enfield *Economic Development Strategy 2020* notes demand for health services will rise as the population ages and lives longer and as the rate and degree of chronic health conditions increases as the population lives longer. In and around the Structure Plan area⁸ more people are employed in health care and social assistance than any other industry and the proportion has increased over-time (14.2% in 2006 to 16.8% in 2016 (+592 people)). The need for employment lands for health and service providers is identified at a regional⁹ and local¹⁰ level and within residential growth areas subject to service need and land use demand planning. As is emerging economic opportunities within aged care, specialist services (including disability), social assistance and for local health facilities.

The 30 Year Plan calls for universal design principles and Council's *Disability Discrimination Action Plan 2013-2017* generally seeks social infrastructures and open space that are accessible by diverse communities and people of all abilities and ages.

2.3.12. Education and Training

The Structure Plan area includes the Gilles Plains TAFE SA site and the SAHMI site and is in near proximity of Heritage College, Cedar College and St Paul's College. In and around the Structure Plan area¹¹ approximately 8% of the population is employed in education and training (up from 7.2% in 2006 or +244 people). The City of Port Adelaide Enfield *Economic Development Strategy 2020* seeks to retain and support TAFE SA and other existing and potential education and learning providers in the City. This includes ensuring supporting infrastructure such as technology, telecommunications, transport and learning hubs is available to support access to education and development of learning specialisation to attract domestic and international students. At a preschool and primary school level, *The 30 Year Plan* calls for facilities (primary school, child care centre, or kindergarten) within 1 kilometre (or a 15-minute walk).

⁷ City of Port Adelaide Enfield Community Survey 2017.

⁸ ABS Census data Northgate-Oakden-Gilles Plains, 2006 to 2016.

 $^{^{9}\,}$ Northern Economic Plan 'Look North', January 2016, Government of South Australia.

¹⁰ City of Port Adelaide Enfield, Economic Development Plan 2020.

¹¹ ABS Census data Northgate-Oakden-Gilles Plains, 2006 to 2016.



2.3.13. Urban Heat Effects

Adapting to climate change is a key theme of *The 30 Year Plan, State Planning Policy 5: Climate Change*, Council's *Living Environment Strategy 2017-2022*, and underpins recent work through the *Adapt West* project. Those documents seek to create urban environments that are green (through urban green cover and infrastructure) with cooling benefits (such as retaining water in the landscape through water sensitive urban design), as well as using a more compact urban form, good design of public places, green industries and technologies, and active travel to build climate resilience. Urban heat mapping for Western Adelaide compares low, medium and high-density residential developments and recommends mitigation strategies for heat island effects as infill development and density across Greater Adelaide increases.



3 - POPULATION AND GROWTH



3. Population and Growth

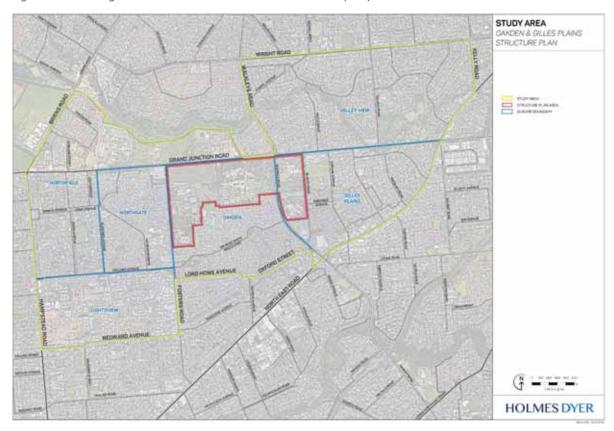
3.1. Overview

This section provides an assessment of population and household growth characteristics based on demographic data from the Australian Bureau of Statistics Census 2016, comparing Northgate-Oakden-Gilles Plains Statistical Area 2 (SA2) which is intended to represent a community that interacts together socially and economically, with Port Adelaide Enfield local government area (PAE LGA) and Greater Adelaide.

Northgate-Oakden-Gilles Plains SA2 includes the following suburbs as shown in Figure 3:

- Northfield;
- Northgate;
- Lightsview;
- Oakden;
- · Valley View; and
- Gilles Plains.

Figure 3. Northgate-Oakden-Gilles Plains Statistical Area 2 (SA2)





3.2. Population Characteristics

In 2016, the Northgate-Oakden-Gilles Plains SA2 had a combined population of 24,592 persons representing approximately 20.3% of the local government area of Port Adelaide Enfield.

Table 1 below shows the population for Northgate-Oakden-Gilles Plains SA2 increased from 18,985 persons in 2006 to 24,592 persons in 2016 which is an increase of 5,607 persons. This represents an annual average population growth rate of approximately 2.9% per year.

Table 1. Total Population (Usual Residence), Northgate-Oakden-Gilles Plains SA2

Year	Persons
2006	18,985
2011	20,795
2016	24,592

Source: ABS Census, 2006 to 2016

This growth of the past decade provides a good indication of the ability of the market to absorb residential development within the Structure Plan area.

3.2.1. Age Profile

The table below compares service age groups for Northgate-Oakden-Gilles Plains SA2, Port Adelaide Enfield (PAE) LGA and Greater Adelaide.

Table 2. Service Age Groups, SA2 compared with PAE LGA and Greater Adelaide, 2016

Service Age Groups	Northgate – Oakden – Gilles Plains (SA2)	Port Adelaide Enfield (LGA)	Greater Adelaide
Babies and pre-schoolers (0 to 4)	7.0%	6.3%	5.9%
Primary schoolers (5 to 11)	7.9%	7.6%	8.2%
Secondary schoolers (12 to 17)	6.3%	6.1%	6.9%
Tertiary education and independence (18 to 24)	8.6%	9.1%	9.5%
Young workforce (25 to 34)	17.6%	16.6%	13.8%
Parents and homebuilders (35 to 49)	22.0%	20.8%	19.7%
Older workers and pre-retirees (50 to 59)	10.6%	12.7%	13.1%
Empty nesters and retirees (60 to 69)	9.7%	10.1%	11.1%
Seniors (70 to 84)	8.6%	8.2%	9.3%
Elderly aged (85 and over)	1.8%	2.6%	2.6%

Source: ABS Census, 2016



Table 2 indicates Northgate-Oakden-Gilles Plains SA2 is characterised by young and mature families with children:

- There is a higher proportion of population categorised as 'Babies and pre-schoolers' aged between birth and four years (7.0%) compared with PAE LGA (6.3%) and Greater Adelaide (5.9%) and a similar proportion of population categorised as 'Primary schoolers' (7.9%) compared with PAE LGA (7.6%) and Greater Adelaide (8.2%); and
- There is a higher proportion of population categorised as 'Young workforce' (17.6%) aged between 25 to 34 and 'Parents and homebuilders' (22.0%) aged between 35 to 49 compared with PAE LGA (16.6% and 20.8%) and Greater Adelaide (13.8% and 19.7%).

The young and mature families' segment of the study area is likely to be seeking services such as education, health and medical, convenience and daily needs retail and recreation and open space.

Figure 4 below shows the change in selected service age groups for the SA2 between the 2006 and 2016 Census periods.

Population Change (2006 -2016) by Numbers 2000 3000 4000 1000 5000 6000 Babies and pre-schoolers (0 to 4) Primary schoolers (5 to 11) Secondary schoolers (12 to 17) Tertiary education and independence (18 to 24) Young workforce (25 to 34) Parents and homebuilders (35 to 49) Older workers and pre-retirees (50 to 59) Empty nesters and retirees (60 to 69) Seniors (70 to 84) Elderly aged (85 and over) ■ 2006 ■ 2016

Figure 4. Change in Selected Service Age Groups for Northgate – Oakden – Gilles Plains SA2, 2006 to 2016

Source: ABS Census, 2016

Figure 4 demonstrates that, although the population is categorised by young and mature families, there has also been a proportional increase in the population aged between 45 to 54 years of age and the population aged 65 to 74 years of age. This suggests that, in addition to family services and facilities, the Structure Plan area could consider the provision of allied health and community services that facilitate lifelong participation in community life.



3.2.2. Household Types

The table below compares household types and family composition for Northgate-Oakden-Gilles Plains SA2, PAE LGA and Greater Adelaide.

Table 3. Household Types - Family Composition, SA2 compared with PAE LGA and Greater Adelaide, 2016

Household Types and Family Composition	Northgate – Oakden – Gilles Plains (SA2)	Port Adelaide Enfield (LGA)	Greater Adelaide
Average Household Size	2.5	2.4	2.5
Couple with no children	37.1%	35.8%	38.0%
Couple with children	44.3%	42.1%	43.2%
One parents families	16.6%	19.7%	17.0%
Other family	2.0%	2.4%	1.8%
Family households	71.1%	64.8%	68.7%
Single or (lone) person households	25.1%	30.4%	27.4%
Group households	3.8%	4.8%	3.9%

Source: ABS Census, 2016

The study area contains a higher proportion of 'Family households' (71.1%) compared with PAE (64.8%) and Greater Adelaide (68.7%) including a higher proportion of 'Couples with no children' and 'Couples with children.' There are fewer 'Single or lone person households' (25.1%) compared with PAE (30.4%) and Greater Adelaide (27.4%).

Household types for the study area reflect the younger age profile identified in Table 2 and further suggests this segment of the study area is likely to be seeking services such as education, health and medical, convenience and daily needs, retail, and recreation and open space.

3.2.3. Dwelling Types

Table 4 below compares dwelling types for Northgate-Oakden-Gilles Plains SA2, Port Adelaide Enfield LGA and Greater Adelaide.

Table 4. Dwelling Types SA2 compared with PAE LGA and Greater Adelaide, 2016

Dwelling Types	Northgate – Oakden – Gilles Plains (SA2)	Port Adelaide Enfield (LGA)	Greater Adelaide
Separate House	77%	69.3%	74.8%
Semi-detached, row, or terrace house, townhouse etc.	19%	22.2%	16.9%
Flat or apartment	4.0%	7.8%	7.8%
Other dwelling	0.0%	0.3%	0.3%

Source: ABS Census, 2016

Table 4 shows greater housing diversity is available within PAE LGA compared with Greater Adelaide. The study area has the highest proportion of separate houses (77.5%) compared with PAE LGA (69.3%) and Greater Adelaide (74.8%).

Table 5 below shows dwelling types as a proportion of total dwellings for the SA2 since 2006.



Table 5. Dwelling types as a proportion of total dwellings 2006-16, Northgate-Oakden-Gilles Plains SA2

Dwelling Types	2006	2011	2016	Change 2006 – 2016 (%)
Separate House	89.0%	86%	77%	-12%
Semi-detached, row, or terrace house, townhouse etc.	7.0%	10%	19%	12%
Flat or apartment	4.0%	5%	4%	0%

Source: ABS Census, 2016

Despite the predominance of separate houses for the SA2 in 2016, ABS Census time series data for Northgate-Oakden-Gilles Plains reveals a 12% reduction in the proportion of this dwelling type between 2006 and 2016. Over the same period the SA2 recorded a 12% increase in the proportion of smaller dwelling types (semi-detached, row, or terrace house, townhouse). The delivery of greenfield and infill development within the SA2 over this period is likely to have influenced this proportional shift in dwelling types.

This could suggest that dwelling sizes and lot sizes across the inner and middle metropolitan area have generally become smaller over time, potentially influenced by zoning, land value and market preferences, with a corresponding decrease in private open space.

3.2.4. Dwelling and Allotment Trends

Analysis of development trends over-time provides insight into the changing products being delivered through coordinated land division. Table 6 below shows a twenty-year trend in lot size and dwelling size focussing on master planned communities relevant to the location and likely mixed-use outcomes proposed within the Structure Plan area.



Table 6. Trends in lot size and dwelling size over time

Year of Development	Median Land Size m ²	Median Dwelling Size m ²
Golden Grove		
1993	573	176
1994	523	165
1995	680	170
1996	622	162
1997	595	166
1998	606	185
1999	529	165
2000	485	179
Mawson Lakes		
2000	539	278
2001	448	262
2002	420	199
2003	395	223
2004	375	238
2005	344	182
2006	322	187
2007	322	193
2008	322	200
2009	300	178
2010	300	177
2011	296	180
Lightsview		
2011	315	167
2012	206	209
2013	165	185
2014	171	199
2015	165	179
2016	151	174
2017	165	170

Table 6 shows that:

- Median land size has progressively decreased from over 500m2 between 1993 and 2000 (Golden Grove and Mawson Lakes), to 151m² and 165m² by 2016 and 2017 (Lightsview); and
- The median house size has remained relatively constant. For instance, median house size at Golden Grove in 1993 was 176m2 compared with median house size of 170m² at Lightsview in 2017.

This suggests that development (across the selected middle-metropolitan projects) has consistently delivered smaller lot sizes for family homes. As development occurs into the future, there may need be a greater emphasis on accessible public open space and quality public realm to satisfy household recreation needs.



3.2.5. Cultural Diversity

Table 7 below compares country of birth for Northgate-Oakden-Gilles Plains SA2, Port Adelaide Enfield LGA and Greater Adelaide

Table 7. Top 5 overseas countries of birth* SA2 compared with PAE LGA and Greater Adelaide, 2016

Birthplace	Northgate – Oakden	– Gilles Plains (SA2)	Port Adelaide Enfield (LGA)	Greater Adelaide
	No.	%	%	%
India	1,317	5.4%	4.7%	2.0%
England	926	3.8%	4.6%	7.4%
China (excluding SARs and Taiwan)	907	3.7%	2.4%	1.8%
Vietnam	361	1.5%	3.8%	1.1%
Philippines	345	1.4%	1.4%	0.8%

Source: ABS Census, 2016, *by number of residents and proportion born overseas

Table 7 shows that the SA2 had a significantly higher proportion of population from India (5.4%) and China (3.7%) compared with PAE LGA (4.7% and 2.4%) and Greater Adelaide (2.0% and 1.8%). Time series data from the 2016 ABS Census indicates that the Indian born population increased by 1,158 persons between from 2006 to 2016 and over the same period the Chinese born population increased by 744 persons.

This suggests that the study area is attracting recent overseas arrivals and therefore opportunities for community integration is likely to be important for the Structure Plan area. This may be most readily provided through a multifunctional open space network that accommodates families, pets, events and physical activity.

A small proportion of the population in the SA2 (2.3%) identified as Aboriginal and Torres Strait Islander, the same proportion as for PAE LGA, and above the metropolitan Adelaide average of 1.4%. This may indicate demand for services and facilities for the Aboriginal and Torres Strait Islander community (noting existing primary school, early learning and community centre in the study area).

3.2.6. SEIFA Index

The Socio-Economic Indexes for Areas (SEIFA) is a product developed by the Australian Bureau of Statistics to measure the relative level of socio-economic disadvantage based on a range of Census characteristics. The SEIFA index for the City of Port Adelaide Enfield is shown in Table 8 below.



Table 8. Index of Relative Socio-economic Disadvantage, City of Port Adelaide Enfield, SEIFA

Area	2016 Index	Percentile
Lightsview	1060.4	82
Australia	1001.9	46
Valley View - Walkley Heights	997.3	44
Largs Bay - Largs North and District	995.1	43
Klemzig - Windsor Gardens - Dernancourt	992.0	41
Greater Adelaide	989.0	39
Oakden - Hillcrest	988.6	39
Northfield - Northgate	981.2	35
South Australia	979.0	33
Ethelton - Port Adelaide and District	970.2	29
Greenacres - Hampstead Gardens	967.1	28
Enfield - Clearview and District	954.0	23
North Haven - Osborne - Taperoo	949.1	21
Port Adelaide Centre District	945.3	20
City of Port Adelaide Enfield	936.0	17
Rosewater - Alberton - Queenstown	912.8	12
Gilles Plains - Holden Hill	902.8	10
Croydon Park - Devon Park - Dudley Park	878.6	7
Ottoway - Gepps Cross and District	847.7	5
Ferryden Park - Mansfield Park and District	830.5	4
Kilburn - Blair Athol	809.2	3

Source: Profile ID

Table 8 shows the relative level of socio-economic disadvantage was greater for the City of Port Adelaide Enfield compared with the metropolitan average Adelaide. Gilles Plains-Holden Hill recorded higher levels of disadvantage that the City of Port Adelaide Enfield.

Northfield-Northgate and Oakden-Hillcrest scored more favourably that both the City of Port Adelaide Enfield (PAE) and the South Australian (SA) average. Valley View-Walkley Heights recorded less disadvantage than PAE, SA and Greater Adelaide. Lightsview was recorded as the least disadvantaged area and ranked more favourably that the Australian average.

Comparison with SEIFA relative levels of socio-economic advantage show a similar picture.

The SEIFA index suggests that a good proportion of households within the Structure Plan area may have available income for discretionary spending that could support 'fee for service' recreation and entertainment services. However, there is a proportion of the population that may benefit from access to more affordable (and no-cost) forms of recreation such as high-quality (family) open space, community recreational programs and initiatives such as community gardens.



3.3. Population Projections

3.3.1. Projected Residential Development Densities and Yields

The delivery of housing in the Structure Plan area has been estimated using an anticipated housing density of 25 to 30 dwellings per hectare (noting guidance provided in *The 30 Year Plan for Greater Adelaide 2017 Update* is for average gross densities of development in transit corridor catchments of 25 to 35 dwellings per hectare).

Residential density varies across the Structure Plan area according to site characteristics including slope, tree cover and drainage requirements as well as likely market considerations impacting the ultimate yield.

Residential development yield is subsequently estimated across various precincts as shown in Figure 5 below.



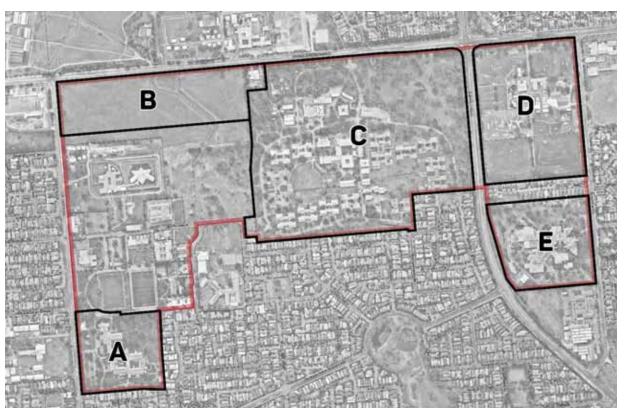


Table 9 below shows the estimated yield for the various precincts. The timing over which different land parcels can be brought to market will be determined by factors such as land ownership, existing use arrangements (such as lease or license), and market demand. Precincts B and C are expected to be capable of being brought to market in the short to medium term providing capacity for approximately 1,240 new homes, while the total capacity for new homes in the Structure Plan area is estimated to be just under 2,000 dwellings at full residential development.



Table 9. Yields for various precincts

Precinct	Dwellings
Precinct A	200 Dwellings
Precinct B	240 Dwellings
Precinct C	1,000 Dwellings
Precinct D	350 Dwellings
Precinct E	200 Dwellings
Total	1,990 Dwellings

3.3.2. Projected Population for the Structure Plan area

The 2016 ABS Census Data indicates that the average household size for Northgate-Oakden-Gilles Plains SA2 was 2.5. Based on average household size of more recent infill development in the SA2 (Lightsview average household size of 2.36), this assessment adopts an average household size for the Structure Plan area of 2.4. Based on the production of approximately 1,990 residential allotments (across the Structure Plan) and average household size of 2.4, it is estimated that the Structure Plan could potentially contribute approximately 4,776 persons to the existing population.

3.3.2.1. Projected Age Profile for Structure Plan

The DPTI 'Population Projections for South Australia Statistical Local Areas (SLA), 2011-31' (February 2016 release) forecasts the age structure of projected populations at five-year intervals to 2031 for defined Statistical Local Areas (SLAs). As shown in Figure 6, the Structure Plan area is located within the Port Adelaide Enfield – East SLA. This SLA provides is used as the statistical basis for projecting the future demographics for this housing assessment.

Figure 6. Structure Plan Area within the Port Adelaide Enfield – East SLA





Based on the age profile forecast for the Port Adelaide Enfield – East SLA, the Structure Plan area is likely to see proportionate population growth as broken down below:

- 1,500 (31.4%) persons under the age of 24;
- 2,086 (43.7%) persons between 25 to 54;
- 1,190 (24.9%) persons over the age of 55; and
- 546 (11.4%) persons over the age of 70.

This indicates that just over 75% of the projected population is expected to be under 55 years of age which supports a need for diverse housing products to cater for couple and young and mature family households, while maintaining options for the population to retire in place. These estimates are detailed in the Table 10 below.

Table 10. Projected population by 5-year age group for the Structure Plan area

Age Group	Port Adelaide Enfield East	Structure Plan Estimated Population	
Age Group	Number	%	(persons)
0-4	2,779	6.1%	290
5-9	2,758	6.0%	288
10-14	2,783	6.1%	290
15-19	2,902	6.3%	303
20-24	3,170	6.9%	330
25-29	3,514	7.7%	366
30-34	3,564	7.8%	372
35-39	3,398	7.4%	354
40-44	3,419	7.5%	356
45-49	3,319	7.2%	346
50-54	2,797	6.1%	292
55-59	2,328	5.1%	243
60-64	2,121	4.6%	221
65-69	1,727	3.8%	180
70-74	1,669	3.6%	174
75-79	1,359	3.0%	142
80-84	1,152	2.5%	120
85+	1,057	2.3%	110
TOTAL	45,816	100%	4,776

Source: ABS Census Data (DPTI), 2016



4 - SOCIAL INFRASTRUCTURE ASSESSMENT



4. Social Infrastructure Assessment

4.1. Overview

The quality and availability of social infrastructure such as aged care accommodation, childcare, schools, community facilities, sporting and recreation venues, health and medical facilities, retail, restaurants and general services are important to strengthen local communities and support population growth.

The following section provides an assessment of existing social infrastructure capacity and open space for the Oakden and Gillies Plains Structure Plan area.

4.2. Existing Social Infrastructure Capacity Assessment

4.2.1. Aged Care Accommodation

There are three aged care facilities available within the study area providing a total of 136 Independent Living Units (ILUs) and/or apartments.

Table 11. Aged Care Facilities within Northgate – Oakden – Gilles Plains SA2

Name	Address	Approx. distance from Structure Plan Area	Number of Beds	
Oakden Retirement Village	27 Brookside Street, Oakden SA 5086	130m	15 ILUS	
Lightsview Retirement Village	2-26 East Parkway, Northgate SA 5085	600m	81 ILUS	
Northfield -	1a Moyston Avenue, Northfield SA 5085	1.5km	40 ILUs	
Northlield	2a Hargrave Street, Northfield SA 5085	T.DKIII	40 ILUS	

Source: Location SA

As shown in Table 12, five aged care facilities are located within proximity (4km) to the Structure Plan area.

Table 12. Aged Care Facilities within proximity (4km) to the Structure Plan area

Name	Address	Approx. distance from Structure Plan Area	Number of Beds
Aveo Crestview	136 Fosters Road, Hillcrest SA 5086	1.2	88 ILUS
Clearview Manor	1-7 Leicester Street, Clearview SA 5085	2.8	21 Apartments
Homestead Serviced Apartments	15 Homestead Ave, Walkley Heights SA 5098	3.6	41 Apartments
The Elms Lifestyle Village	4-30 Homestead Ave, Walkley Heights SA 5098	3.8	214 ILUS
Wistoria Craya Patiromant Villaga	112 Hampstood Dood Proodyjou CA FOO2	4.2	51 ILUS
Wisteria Grove Retirement Village	112 Hampstead Road, Broadview SA 5083	4.2	31 Apartments

Source: Location SA



It is anticipated that the Structure Plan is projected to accommodate 546 persons over the age of 70. According to the standard rate of provisions of aged care beds for persons aged above 70 years ¹² (12.5 beds for every 100 persons), the Structure Plan area is expected to generate a demand for approximately 68 beds. There is potential for this need to be met through planning policy provisions on housing supply and diversity. This could involve the facilitation of increased housing options to include age-specific accommodation, assisted living accommodation and dependent accommodation, in proximity to shops, public transport, medical services and allied health care.

4.2.2. Childcare, Preschool and Education Facilities

Within the study area, there are a number of childcare and pre-school facilities and government and non-government education facilities.

4.2.2.1. Childcare, Pre-school and OSHC

There are 10 childcare centres, playgroups, kindergartens, early learning centres and out of school hours care within the Northgate – Oakden – Gilles Plains SA2, with an additional 5 centres nearby (refer to Table 13 and 14). The following centres provide full and part-day care, out-of-school hours care and vacation care and in some cases are located with government and non-government schools or are privately operated.

¹² Legislated Review of Aged Care, 2017, https://agedcare.health.gov.au/sites/g/files/net1426/f/documents/08_2017/legislated_review_of_aged_care_2017.pdf



Table 13. Childcare, Preschools and OSHC within the Northgate-Oakden-Gilles Plains SA2

Name	Address	Approx. distance from Structure Plan Area	Opening Times	Vacancy
Northgate Child Care Centre and Kindergarten	136 Folland Ave, Northgate SA 5085	1.0km	6:30am – 6:30pm Mon to Fri	Yes
Stepping Stone Lightsview Childcare and Early Development Centre	40 David Campbell Way, Lighstview SA 5085	2.9km	6:30am – 6:30pm Mon to Fri	Yes
Wandana Aveune Early Learning and Kinder	40 Wandana Ave, Gilles Plains SA 5086	3.2km	6:30am – 6:30pm Mon to Fri	Yes
Community Kids Greenacres Early Education Centre	3-5 Rellum Road Greenacres SA 5086	2.2km	06:30- 18:30	Yes
St Martin's Catholic Primary School OSHC	60-80 Princes Road, Greenacres SA 5086	2.7km	07:15 – 08:30 12:30-18:00 07:15 -18:00 Mon to Fri	No
Stepping Stone Northfield Childcare and Early Development Centre	482-484 Grand Junction Road Northfield SA 5085	2.9km	06:30-18:30	Yes
Camp Australia – Northfield Primary School OSHC	North Avenue, Northfield SA 5085	2.1km	15:00—18:00	Yes
Camp Australia – St Paul's College OSHC	729 Grand Junction Road Gilles Plains SA 5086	2.4km	15:00-18:00	N/A
Walkley Heights Child Care Centre	1-5 Homestead Ave Walkley Heights SA 5098	3.7km	06:30 -18:30	Yes
Cedar College OSHC	215-233 Fosters Road Cedar College Northgate 5085	600m	03:15-06:00	N/A

Source: childcarefinder.gov.au

Table 14. Childcare, Preschools and OSHC within proximity of Northgate-Oakden-Gilles Plains SA2

Name	Address	Approx. distance from Structure Plan Area	Opening Times	Vacancy
North East Community Children's Centre	1A Gillies Cres, Hillcrest SA 5086	0.750 km	6:30 am to 6:15pm Mon to Fri	Yes
Camp Australia – Avenues College OSHC	Beatty Ave, Hillcrest SA 5086	1.2 km	03:05pm – 6pm Mon - Fri	Yes
St Puis X School	8 Windsor Grove, Windsor Gardens SA 5087	1.8 km	7:15 – 8:30am 15:00 – 18:15 07:30-18:00 Mon - Fri	Yes
Hillcrest Primary School OSHC	1 Condamine St Hillcrest SA 5086	1.2 km		Yes
Treetops Early Learning Centre - Hillcrest	2 Balmoral St Hillcrest SA 5086	1.6 km	06:30 – 18:30 Mon to Fri	N/A

 ${\it Source: child care finder. gov. au}$



Tables 13 and 14 identify a large number of child care and preschool services within proximity to the Structure Plan area. It is anticipated that the Structure Plan area will generate an additional 290 persons between the ages of 0 to 4 years.

There is a high proportion of families with children currently within the study area and, while not all families will be seeking child care or out-of-school care, there is a potential need for additional early years infrastructure to accommodate expected growth in demand. It is noted, however, that vacancies currently exist in most of the documented facilities.

4.2.2.2. Primary and Secondary Education

Within the study area, there are seven government and five non-government schools. These are identified in the Table 15 below.

Table 15. Primary and Secondary Schools

Level	School	Level	Approx. distance from	Term 3 FTE enrolment		
Level	301001		Structure Plan Area	2015	2016	2017
Primary	Northfield Primary School	Government	1.5km	316	333	337
Primary	Wandana Primary School	Government	1.2km	179	164	162
Primary	Hillcrest Primary School	Government	1.2km	207	229	277
Combined	Avenues College	Government	1.2 km	580	615	652
Secondary	Marden Senior College	Government	4.5 km	795	818	757
Secondary	Valley View Secondary School	Government	2.2 km	278	278	281
Secondary	Roma Mitchell Secondary College	Government	1.9 km	1,241	1,274	1,281
Combined	Cedar College	Non- Government	0.180 km	-	-	-
Primary	Heritage College	Non- Government	0 km	-	-	-
Primary	St Martin's Catholic Primary School	Non- Government	2.3 km	-	-	450
Combined	St Paul's College	Non- Government	0 km	-	-	-
Secondary	Kildare College	Non- Government	2.2 km	-	-	-
TOTAL				3,596	3,711	3,747

Source: education.sa.gov.au

The Structure Plan area is located within four primary school catchments - Northfield Primary, Wandana Primary School, Hillcrest Primary School and Avenues College (formally known as Windsor Gardens B-12).

There are seven government and non-government secondary schools (including two combined) located within the Structure Plan area. 13 The Structure Plan area is located in the Avenues College B - 12 catchment. This school is located 3.2km from the Structure Plan site and currently has 652 students enrolled.

¹³ Enfield High School at Gepps Cross was recently closed.



It is estimated that approximately 881 persons aged between 5-19 could be anticipated in the future Structure Plan area.

Based on standard rates ¹⁴ of 1 primary school per 3,000 dwellings and 1 high school per 11,000 dwellings and the number of government and non-government schools within close proximity to the subject land, it is envisaged that the proposed Structure Plan would not trigger any demand for primary or secondary schools. Any increase in demand for government schools could be met by expansion of existing school sites.

Existing schools interfacing with the Structure Plan area could potentially be seeking to expand their campus' which could accommodate increased demand associated within the Structure Plan area.

In addition, based on advice provided by the Department for Education the current status of schools within the Oaken and Gilles Plains area do not warrant the provision of a new school in the short-term. This assessment is based on:

- Significant capacity in existing schools including Avenues College (zoned high school for this area), Valley View Secondary School, Ingle Farm East Primary School and Wandana Primary School;
- The transition of Year 7 to high school in 2022 will initially reduce enrolments for some primary schools;
- Some of the schools within this area are currently planned for additional accommodation; and
- Roma Mitchell Secondary College has been approved funding for additional accommodation to support a
 projected increase of 500 students. The school's enrolment capacity will increase from 1300 to 1800
 students. Capital Project works are expected to be completed by December 2021.

4.2.2.3. Tertiary Education

A range of tertiary education providers are located within the Adelaide CBD and are reasonably convenient via public transport from the Structure Plan area. These campuses offer a range of courses and levels of study.

The Gilles Plains TAFE SA Campus is located on the Structure Plan site and currently offers a range of award courses, short courses and international courses.

4.2.3. Community Facilities

There are two key community centres (Wandana Community Centre and Hillcrest Community Centre) located within proximity to the Structure Plan area. The Wandana Community Centre (operated by Centacare) is located east of the Structure Plan site and offers a range of community services including computer classes, a community garden, fitness classes, lunch programs and language classes. The Hillcrest Community Centre (operated by Port Adelaide Enfield Council) offers a variety of recreation and leisure activities such as yoga and martial arts, English classes and meeting rooms/hall hire.

In addition, the Greenacres Library is located south (approximately 2.3) of the Structure Plan, offers a wide range of services to the community including regular programs and events such as art and craft groups, book clubs,

¹⁴ Economic Development Queensland – Community Facilities, PDA Guideline no. 11, 2015, http://www.dlgrma.qld.gov.au/resources/guideline/pda/guideline-11-community-facilities-may2015.pdf



children's activities, health and wellbeing workshops, technology programs and English classes. The Greenacres Library is open seven days a week, with limited hours on Saturday and Sundays.

Other community facilities such as scout groups and community centres located within the study area are listed below in Table 16:

Table 16. Community Facilities

Name	Address
Northfield Sea Scouts	Pettitt St, Northfield SA 5085
Hillcrest Scout Group	7 Melville St, Hillcrest SA 5086
Beefacres Community Hall	10 Pittwater Dr, Windsor Gardens SA 5087
George Crawford Community Centre	Lothian Ave, Windsor Gardens SA 5087
Windsor Gardens Community Hall	Danby Avenue, Windsor Gardens
Holden Hill Community Centre	82 Valiant Rd, Holden Hill SA 5088

It is apparent that the Structure Plan area and surrounds are well served by existing community services and facilities. Potential population growth within the Structure Plan area will generate additional demand for community facilities however, this is considered to have the potential to add to the vibrancy of existing centres. While no specific requirement has been identified, the policy framework should not preclude development of a community centre(s).

4.2.4. Retail and General Services

Immediately south-west (within approximately 400m to 500m) is the Northgate Shopping Centre. This shopping centre includes a Woolworths and specialty shops, together they provide a range of other shops such as a bakery, cafes/restaurants, a hairdresser and takeaway food. These retail facilities can provide for all essential daily needs and some weekly shopping needs.

Valley View Shopping Centre is located approximately 800m north east of the Structure Plan area and includes a Foodland, a gym and a range of shops such as a bakery, takeaway food and a hairdresser.

The Gilles Plains Shopping Centre is located approximately 800m south east of the Structure Plan area. This is a larger centre with a wide variety of shops including both a Woolworths and an Aldi, along with a range of services which are likely to meet all weekly shopping and service needs. It also provides restaurants, cafés and takeaway food offers.

Additional shopping opportunities at Greenacres Shopping Centre, located approximately 1.5km south west of the Structure Plan which is anchored by a Coles and along with access to banks, a newsagent, a pharmacy and a Post Office. This locality also provides a large range of takeaway/fast food options, along with restaurants.

Although this indicates that the existing population is being adequately serviced by existing retail, restaurants and general services, the projected population growth for the Structure Plan area will underpin the provision of new retail floorspace including opportunities for restaurants, cafes and daily/weekly shopping needs.



4.2.5. Health and Medical Facilities

There are numerous medical facilities and allied health facilities within the study area, many of which are colocated with the shopping facilities identified above. The nearest medical centre is the Oakden Medical Centre at Hillcrest.

Public Hospital services are provided at Modbury Hospital (4.0km) or in the Adelaide CBD (15km).

Located west of the Structure Plan area is the Hampstead Rehabilitation Centre which provides clinical rehabilitation services.

The number of health and medical services in the study area in shown in Table 17 below.

Table 17. Health and Medical Services

Specialist Service	Number of clinics within the study area
Doctor (GP)	9
Dentist	10
Physiotherapy	7
Pharmacy	6
Other	7

The new population living in the Structure Plan area is expected to generate demand for some 5 to 6 doctors, based on a rate of 1.3 doctors per 1,000 people (average rate of FTE GPs per population across SA in 2015 - 2016)¹⁵. Access to medical and health services will become increasingly important to the family and ageing demographic within the study area and there is a potential demand for additional health and medical facilities, such as dentists, physiotherapy, chiropody etc.

4.2.6. Emergency Services

4.2.6.1. Police

The nearest branch station to the Structure Plan area is the Holden Hill Police Station. This station operates 24 hours, 7 days a week and is expected to be sufficient to cover the Structure Plan area.

4.2.6.2. Fire Services

The Structure Plan area currently includes an MFS Station – Oakden Fire Station which operates 24 hours, 7 days a week. The Paradise Fire Station is also located nearby which is some 2.6km from the Structure Plan area. It is considered that the Structure Plan area will be sufficiency served by existing fire services.

4.2.6.3. State Emergency Services (SES)

The SES is an emergency and rescue service that is predominately made up of volunteers. The closest SES unit to the Structure Plan area is the Enfield State Emergency Service located at 46 Hoods Road, Enfield.

¹⁵ Australian Medical Association, https://ama.com.au/article/general-practice-facts



4.2.6.4. Ambulance

The nearest SA Ambulance service station is located within the Structure Plan Area at 258 Fosters Road, Oakden.

4.2.7. Transport Connections

The existing public transport service is via bus. Bus stops are located on both sides of Grand Junction Road, Fosters Road, Sir Ross Smith Boulevard and Sudholz Road.

The northern side of the Structure Plan area is serviced by buses:

- 361 Port Adelaide to tea Tree Plaza; and
- 475 Elizabeth Depot to Heritage College (School Service Bus).

In addition, the western side of the Structure Plan area is serviced by buses:

- 208 Paradise Interchange to City;
- 528 Northgate to City; and
- 975 Roma Mitchell Secondary College to City (School Service Bus).

Additional specialist buses are located along Sudholz Road including:

- 474 Pooraka to Kildare College (School Service Bus);
- 930 Paradise to Mawson Lakes (School Service Bus); and
- IndstB Royal Society for the Blind to City.

The nearest bus interchange is the Paradise Interchange which is some 2.5km from the Structure Plan area and the nearest train station is the Kilburn Railway Station which is some 6.8 km from the Structure Plan area.

In summary, although there is a high volume of bus services providing high frequency services to the city and surrounding schools the parallel transport assessment¹⁶ informing the structure planning process has identified concerns about the productivity of existing bus routes. An opportunity exists to include additional bus stops along Sudholz Road and a potential extended service through the Structure Plan site.

-

 $^{^{16}}$ Oakden and Gilles Plains Structure Plan, Technical Studies, May 2019, prepared by Arup



4.3. Open Space and Recreation

4.3.1. Open Space

Figure 7 below provides a plan of the existing supply of open space and play facilities for the Structure Plan and the surrounding area and Figure 8 provides a map demonstrating 400m catchment of open space and reserves.

Figure 7. Existing open space for the Structure Plan area and surrounds





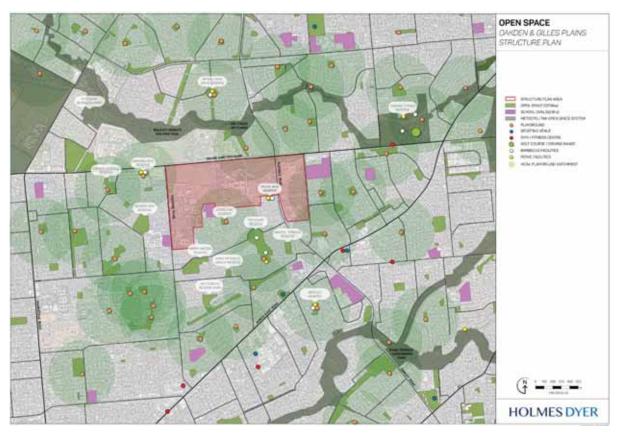


Figure 8. Existing open space (400m playground catchment) within the study area and surrounds

The City of Port Adelaide Enfield Open Space Plan Strategy 2013 states that for every 1,000 persons, 3.5 hectares of recreation and sporting open space will be required as a minimum.

In 2016, the Northgate – Oakden – Gilles Plains SA2 had a combined population of 24,592 persons and based on Council's benchmark, approximately 86 hectares of recreation and sporting open space should be currently provided.

Figure 7 indicates that the study area currently consists of a total of 160.7 hectares of open space (127.8ha) and school ovals (32.9ha) indicating that the area is being well served by existing recreation and sporting open space.

In addition, the Oakden and Gilles Plains Structure Plan proposal is estimated to accommodate 4,776 persons and as such, approximately 13 hectares of recreation and sporting open space will be required if current legislative open space standard is applied (refer to Section 50 in the *Development Act 1993*). High levels of existing provision could support a lower level of provision in the Structure Plan area.

With an increase in population, in particular, families with young children, a range of opportunities exist to improve the quality of open space (rather than quantum). The Structure Plan area provides the opportunity to make improvements and provide for a diversity in open space types.



Current policies seek, where possible, local parks/open space located within an easy five-minute walk from housing and to take advantage of environmental features (i.e. maximise the opportunities for views and retain existing trees where practicable).

4.3.2. Sports and Recreation

4.3.2.1. Sporting and Recreation Venues

The Structure Plan area includes the Adelaide City Football (Soccer) Club which is categorised as a regional level sports facility. This facility is operated under lease but is otherwise available for community use (outside of match days). Other sporting and recreation venues in the study area are shown in Table 18 below.

Table 18. Sporting and Recreation Venues

Name	Address
Northgate Community and Sports Club	Duncan Fraser Reserve, Rowe Ave, Northfield SA 5085
Elite Swim School	207 Hampstead Rd, Northfield SA 5085
Cedar College Sport Centre	LOT 4002 Navigator Dr, Northgate SA 5085
ACFC: Adelaide City Football Club - Adelaide City Park	Corner Fosters Rd &, Hilltop Dr, Oakden SA 5086
Valley View Golf Driving Range	Corner Nelson Rd &, Grand Junction Rd, Valley View SA 5093
Valley View Par 3 Golf Course	935 Grand Junction Rd, Holden Hill SA 5088
Harry Wierda Reserve Tennis / Basketball Court	15 Arlington Ct, Oakden SA 5086
Greenacres Football Club	Edward Smith Reserve, Grand Junction Rd, Northfield SA 5085
LJ Lewis Reserve	Grand Junction Road, Northfiled SA 5085
Thomas Turner Reserve	Geraldine St, Valley View SA 5093
Waterford Circuit Tennis Courts	Waterford Circuit, Northgate SA 5085
Greenacres Tennis Club Inc.	18 Manoora St, Greenacres SA 5086
Valley View Tennis Club	3 Jordan St, Valley View SA 5093

Regional and neighbourhood sports and regional and district recreation parks located in near proximity of the Structure Plan area (within the study area) include:

- Thomas Turner Reserve (currently undergoing a master planning exercise)
- Harry Weirda Reserve, Oakden (netball, basketball and tennis courts)
- Roy Amer Reserve, Oakden (wetland and walking trail)
- Vickers Vimy Reserve, Northgate (cricket and soccer)

Other facilities exist across various school sites including Cedar College, Heritage College, St Paul's College and Wandana Primary School.

Stakeholder and community engagement indicated that some existing spaces are in high demand and that future provision of recreational space should provide for casual sport (and public facilities such as toilets) rather than structured sport activities. Community engagement identified specific interest in a gymnasium and swimming



pool (for recreation, fitness, sports and injury rehabilitation, hydrotherapy and learn-to-swim) to replace the former facilities at the Strathmont Centre.

A new indoor recreation centre at Lightsview (to replace the former Hillcrest stadium) and shared use arrangements with the Hillcrest Primary School indoor sports court are expected to meet demand for indoor recreation. Provision of a swimming pool would be subject to commercial interest.

4.3.2.2. Recreational Trails

The following assessment draws on the parallel investigation into Transport Impact undertaken by Arup. ¹⁷ That assessment notes that when considering design to facilitate walking and cycling, its useful to distinguish between recreational and transportation activity. Recreational walking and cycling are dependent only on the urban design providing an amenable environment and has a limited link to land use, while walking and cycling for transportation is strongly dependent on both land use and urban design.

Most modern residential development caters well to recreational travel by active modes through attractive urban design, comprehensive footpath provision and well distributed allocations of green space. However, for an area to be functionally walkable (or bikeable), useful destinations must be reachable by these modes within a reasonable travel time.

To the north of the Structure Plan is Dry Creek Linear Trail through Walkley Heights. To improve access to the recreational paths at Walkley Heights along Dry Creek there is an opportunity to provide wayfinding and a signalised crossing point on Grand Junction Road.

The City to Levels bikeway runs approximately 2.5km to the west of the site through Clearview, while the River Torrens Linear Trail is approximately 2km to the south. Relatively low stress access between to the City to Levels bikeway exists via Foster Road and Folland Avenue. Direct low cycling access between the Structure Plan area and the Rivers Torrens Linear Trail does not currently exist. However, an indirect route through Oakden, Hillcrest and Windsor Gardens is available.

-

¹⁷ Oakden and Gilles Plains Structure Plan, Technical Studies, May 2019, prepared by Arup.



5 – STRUCTURE PLAN OPPORTUNITIES



5. Structure Plan Opportunities

5.1. Overview

This section identifies opportunities for social infrastructure and open space in the Oakden and Gilles Plains Structure Plan area to inform the structure planning process.

5.2. New Social Infrastructure

This social infrastructure assessment identifies the need for a range of local services such a retailing, cafe, community and recreation facilities, minor commercial spaces (such as GP) and similar uses within the Structure Plan area to serve the expanding local population. It is also appropriate that provision is made for the opportunity to deliver child care centre/early learning within the Structure Plan area.

5.2.1. Aged Care Accommodation

The Structure Plan area is expected to generate a demand for approximately 68 beds. There is potential for this need to be met through planning policy provisions on housing supply and diversity. This could involve the facilitation of increased housing options to include age-specific accommodation, assisted living accommodation and dependent accommodation. These facilities could be in proximity shops, public transport, medical services and allied health care.

5.2.2. Childcare, Preschool and Education Facilities

There is a potential need for additional early years infrastructure to accommodate projected growth in demand by development of the Structure Plan area. While a number of facilities are reporting vacancies demand for these services will increase as the development of the Structure Plan area proceeds, hence, provision of the opportunity to deliver additional capacity within the Structure Plan area is appropriate. This could potentially be linked to existing educational facilities that interface with the Structure Plan area or a new activity centre.

5.2.3. Retail and General Services

Projected population growth for the Structure Plan area will underpin the provision of new retail floorspace including opportunities for restaurants, cafes and daily/weekly shopping needs. Opportunities for such facilities within the Structure Plan area should have regard to walking accessibility of the future population and access by public transport.

5.2.4. Health and Medical Facilities

Projected population growth for the Structure Plan area is expected to generate demand for additional health and medical facilities, such as dentists, physiotherapy, chiropody etc. and provision to deliver capacity within the Structure Plan area (and could form part of a new activity centre) is appropriate.



5.3. Open Space and Recreation

The City of Port Adelaide Enfield *Open Space Plan 2013* identifies ten principles for open space and recreation. Based on this social infrastructure assessment, Principles 4 and 7 are considered of most relevance to the Structure Plan area:

- Principle 4: Diverse recreation activity opportunities will be provided to support diverse community needs. This includes family and recreation oriented open spaces that support informal as well as organised activities.
- Principle 7: Cultural diversity, heritage and creativity will be supported and promoted through creative
 design, event and display spaces, public art, interpretation and other features and activities within open
 space.

5.3.1. Location and Provision

The Structure Plan area offers a significant opportunity to deliver large, flat and useable areas for open space and provide for greenways and connections across the site using the street network and drainage lines.

Two key areas of open space could be provided as a large centrally located open space near the former oval on the Strathmont Centre site and through expansion of Hedge Row Reserve, Oakden (refer to Figure 9). Central areas of open space could also be provided within any large parcel identified for development.

Figure 9. Photographs Hedge Row Reserve



Looking east across Hedge Row Reserve



Looking west across Hedge Row Reserve



Looking east across Hedge Row Reserve



Looking west across Hedge Row Reserve



Open space should be well distributed across the residential precincts, easy to access and maintain to contribute to the amenity of the potential future built form. Applying the hierarchy guidelines from the City of Port Adelaide Enfield *Open Space Plan 2013* to precincts within the Structure Plan area (refer to Figure 5), the Structure Plan area could deliver open space as follows:

Table 19. Application of Council's Open Space Plan 2013 to Open Space Provision

Structure Plan Area Precincts	Provision in accord with Open Space Hierarchy
А	1 x 0.5 ha Neighbourhood Recreation Park
В	1×0.5 ha Neighbourhood Recreation Park or 1×0.25 Local Reserve
	1 x 0.5 ha Neighbourhood Recreation Park; and
С	1×1.0 ha Neighbourhood Recreation Park or 1-2ha Neighbourhood Sports Park
	1 x 0.25 ha Local Reserve (extension to Hedge Row Reserve)
D	1 x 0.5 ha Neighbourhood Recreation Park
Е	1 x 0.5 ha Neighbourhood Recreation Park

Alternatively, the open space network may comprise a series of open space corridors, landscape buffers and intimate local parks. For ease of maintenance and to maximise community access the parcels of recreation or sport open space could be located in close conjunction to the linear open space/drainage network.

5.3.2. Function

This social infrastructure assessment identifies the Structure Plan area is generally well catered for sports provision. There is subsequently opportunity for the future function of open space in the Structure Plan area to provide for informal recreational opportunities, casual sport, play etc which could include opportunities for a multi-cultural community such as casual cricket spaces, bbqs, playgrounds, and quiet places for relaxation and leisure.

Due to natural low-lying areas and drainage networks, it is appropriate that some areas of open space be developed with a dual function of providing aesthetics and stormwater management.

5.3.3. Recreational Trails

Parallel investigations by Holmes Dyer and Arup have identified existing significant recreational (off-road) walking and cycling trails surrounding the Structure Plan area and opportunity to improve access to such trails. This includes:

- Providing wayfinding and a signalised crossing point on Grand Junction Road to access recreational paths at Walkley Heights along Dry Creek.
- Implementation of a side road bicycle boulevard type connection between the Structure Plan area and the River Torrens Linear Trail through Oakden and Windsor Gardens, avoiding the need to travel along Sudholz Road. A route taking in Kew Drive, Fleet Ave and Pittman Road would likely be feasible.



5.4. Design Framework

5.4.1. Social Infrastructure

The provision of social infrastructure should add to the vibrancy of the Structure Plan area and provide opportunity for social connection by the community.

- Social infrastructures can form part of a mixed-use development outcome such as a ground floor use of an apartment or retirement living development.
- Community infrastructure and services can be co-located, integrated and shared use to maximise use and economic provision.
- Low impact activities such as community facilities, child care centre, small-scale shops and cafes can be provided in residential areas where interface issues are appropriately managed.
- Community facilities and infrastructure designed to be safe and inclusive for diverse communities and people of all abilities and ages.

5.4.2. Open Space

The delivery of increased residential density in the Structure Plan area will have direct implications for the quality of public realm and open space (public and private). Public realm is discussed in the parallel investigation by Holmes Dyer for housing. Design guidance for open space has been informed by the City of Port Adelaide Enfield *Open Space Guidelines 2013*, and a series of recommendations in the Adapt West project¹⁸ for mitigating heat island effects in infill development.

5.4.2.1. Diverse and Functional Open Space

- Provide a diverse range of open space such as local parks, playgrounds, casual sporting areas, greenways and community gardens.
- Open space designed to be safe and inclusive for diverse communities and people of all abilities and ages.
- Multi-functional open space that can cater for multiple recreation uses at any one time through size,
 design and/or separation of activity spaces and facilities with potential to conflict.
- Recognise the opportunity to provide intimate public places that sense localised functions, including squares and plazas.
- Open space integrated within the broader linear open space and drainage networks to provide for easy maintenance, access and connectivity.

¹⁸ Western Adelaide Urban Heat Mapping Project Report, August 2017, prepared by Seed Consulting Services, in association with Airborne Research Australia and EnDev Geographic for AdaptWest



5.4.2.2. Private Open Space

- Housing of increased density should include deep root zones to establish tree canopy and spaces for other trees (including productive trees), vegetation and landscaping.
- Green infrastructure can form part of increased density and mixed-use development such as green roofs, vertical gardens and water sensitive urban design.

5.4.2.3. Biodiversity

- Support urban biodiversity along drainage and linear parks and through a connected and diverse network of green infrastructure systems.
- Retain or reintroduce local indigenous plant species and understorey vegetation, and trees that provide hollows in a park-like setting.

5.4.2.4. Greening and Cooling

- Seek to maintain and preferably increase the amount of green space and tree cover across the Structure Plan area to provide cooling benefits.
- Green infrastructure such as trees, grass and raingardens should be used alongside or to shade bitumen covered surfaces such as major and minor roads, bikeways and footpaths.
- Consideration should be given to irrigation (including opportunities for stormwater and recycled water) of green infrastructure to maximise its cooling effect.
- Where feasible the carriage way for main roads could be narrowed, stormwater treatment devices installed, and road pavement changed to lighter coloured materials.
- Guidelines could be developed for material selection for buildings and public realm such as use of light
 coloured roofs and use of substrates such as artificial turf and rubber soft-fall offset through the use of
 shade sails (or similar).
- Dwellings and built form designed with a strong focus on quality, dwelling comfort and liveability.



6 - REFERENCES



6. References

- AdaptWest Western Adelaide Region Climate Change Adaptation Plan, 11 October 2016, prepared by URPS in association with Seed Consulting Services, and AECOM for AdaptWest.
- Animal Management Plan 2018-2023, City of Port Adelaide Enfield.
- Annual Community Survey, 2017 and 2018, City of Port Adelaide Enfield.
- Australian Bureau of Statistics, Census data, 2006 to 2016.
- Biodiversity Management Plan 2016 2020, City of Port Adelaide Enfield.
- Biodiversity Survey Corner of Sudholz and Grand Junction Roads, Oakden, September 2010 (report no. DD002-1-B), prepared by Ecological Associates for Land Management Corporation.
- City Plan 2030, City of Port Adelaide Enfield.
- Disability Discrimination Action Plan 2013-2017, City of Port Adelaide Enfield.
- Economic Development Strategy 2020, City of Port Adelaide Enfield.
- Living Environment Strategy 2017-2022, City of Port Adelaide Enfield.
- Local Area Bicycle Plan 2015 2020, City of Port Adelaide Enfield.
- Oakden and Gilles Plains Structure Plan, Housing Assessment, April 2019, prepared by Holmes Dyer Pty Ltd.
- Oakden and Gilles Plains Structure Plan, Technical Studies, May 2019, prepared by Arup.
- Open Space Plan 2013, City of Port Adelaide Enfield.
- Open Space Guidelines 2013, City of Port Adelaide Enfield.
- Public Health and Community Wellbeing Plan 2015-2020, City of Port Adelaide Enfield.
- Sports Development Strategy 2017-2020, City of Port Adelaide Enfield.
- State Planning Policies for South Australia, 31 January 2019, prepared by the State Planning Commission on behalf of the Minister for Planning, Government of South Australia 2019.
- The 30 Year Plan for Greater Adelaide 2017 Update, Department of Transport, Planning and Infrastructure, Government of South Australia.



APPENDIX



Appendix 1. Social Infrastructure Map

