

# SHENSTONE PARK

**COMMUNITY INFRASTRUCTURE & OPEN SPACE NEEDS ASSESSMENT** 







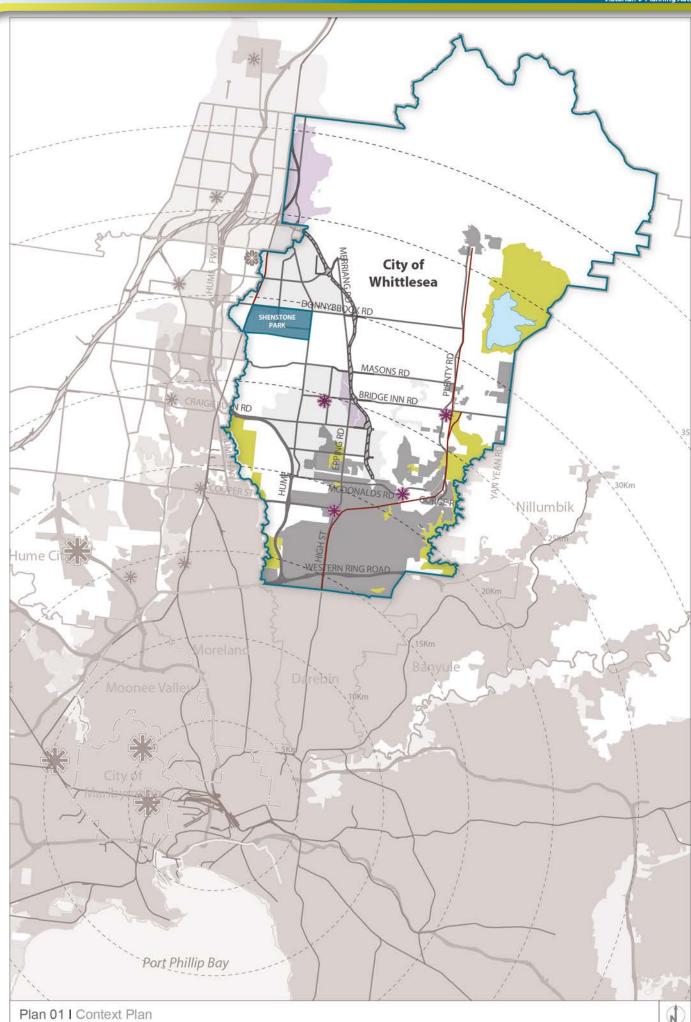
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# 1.0 INTRODUCTION

## 1.1 How to read this document

The Victorian Planning Authority (**VPA**) in conjunction with the City of Whittlesea (**Council**) has prepared the *Shenstone Park Precinct Structure Plan Community Infrastructure Needs Assessment* to understand the demand and type of community infrastructure and open space required to support the future residential population and workforce of the Shenstone Park Precinct. This assessment is part of the ongoing precinct structure planning process and will inform the preparation of a Precinct Infrastructure Plan for the Shenstone Park Precinct Structure Plan.

This assessment has specifically focused on the following community infrastructure and open space items:

- Multipurpose community centres
- Early childhood facilities
- Community rooms
- Youth-oriented spaces
- Primary schools
- Secondary schools

- Sports reserves
- Tennis courts
- Indoor recreation
- Local Parks
- Emergency Services

This assessment ascertains the amount of facilities needed to support the projected population of the Shenstone Park residential area and the subsequent community that will become established. It provides recommendations for the location and size of facilities and responsibilities for their funding and delivery.

The report has not accounted for the potential for some external demand to be met within the precinct, noting adjoining residential areas have each undertaken a Community Infrastructure and Open Space Needs Analysis for their respective precincts, but the report assumes that some demand from the Shenstone Park precinct will be met in surrounding areas.

The report specifically aims to identify the need for community infrastructure of a local order. The population forecasts specifically aim to identify the need for community infrastructure. The population forecasts for Shenstone Park will only meet the benchmarks for the lowest order infrastructure. The lowest order infrastructure refers to Level 1 and Level 2 infrastructure and facilities. Level 1 relates to neighbourhood level community facilities providing for catchments of up to 10,000 people. Level 2 refers to district level facilities providing catchments between 10,000 - 30,000 people. Level 3 and 4 provides for sub-municipal and municipal level facilities for catchments between 30,000 - 60,000 people and beyond.

## 1.2 Project Context

The purpose of this report is to inform the future urban structure of the *Shenstone Park Precinct Structure Plan* (**PSP**) and associated documentation, including the *Shenstone Park Infrastructure Contributions Plan* (**ICP**). The Shenstone Park ICP is a framework to facilitate the timely provision of planned infrastructure to the community. The ICP may be made of one or two parts, a standard levy and/or supplementary levy. The standard levy is a pre-set rate that may be used to fund transport, community and recreation infrastructure and public land provision. In particular circumstances a supplementary levy may also apply.

The PSP will identify basic and essential infrastructure and services for future residents, visitors and workers and the ICP will assist in delivering the infrastructure identified. The report will establish the precinct's requirements for community and open space facilities ranging from public and private, State Government and Council. The Shenstone Park PSP will clarify the infrastructure to be directly provided by the developer and what infrastructure should be provided by the State, including through other funding sources such as Growth Area Infrastructure Contributions.



# 1.3 Methodology

The methodology was based on adopted benchmarks and provision models developed by the VPA, iterative discussions with Council and State Government departments, relevant external stakeholders and a review of technical reports as they relate to the development of the North Growth Corridor.

Key issues and opportunities were identified for the delivery of community infrastructure in the growth areas within the North Growth Corridor, with an emphasis on the City of Whittlesea.

A demographic review was undertaken for surrounding and comparable growth area communities to determine a likely population profile of the future community, in particular Epping North and Wollert.

Benchmarks were applied to the population projections based on full development including proposed dwelling yields, to determine the community infrastructure items to support the future community.

Ongoing consultation within the VPA, City of Whittlesea, and Department of Education and Training (**DET**) has provided input to preferred configurations and locations of education and community facilities within the PSP itself.



# 2.0 STUDY AREA

The Shenstone Park PSP is located within the Northern Growth Corridor in the City of Whittlesea and is wholly located within the locality of Donnybrook. The Shenstone Park PSP is approximately 628 hectares in size, and is bound by Donnybrook Road to the north, the Wollert suburb boundary to the south, the Urban Growth Boundary to the east and the Sydney/ Melbourne railway corridor to the west. The precinct lies immediately south of the Donnybrook/Woodstock PSP area and immediately east of the English Street PSP area. The Shenstone Park PSP area together with these adjoining PSP areas will undergo a full transition of land use as part of large scale residential, commercial and industrial development, with considerable population increase and demographic change.

## 2.1 Metropolitan and Regional Context

The wider area incorporating Shenstone Park is a rural district characterised by the terrain of flat plains/grassland with a scattering of River Red Gum trees and stony knolls. The precinct is positioned to the immediate south-east of the Donnybrook Train Station and to the north of the Epping North development area. The suburb of Donnybrook has a growing population given the recent approval and gazettal of the Donnybrook Woodstock Precinct Structure Plan. Epping North is a major development area within the Northern Growth Corridor that is currently undergoing the land use transition that is anticipated for the Shenstone Park PSP area. Epping North will provide a major town centre, and along with a network of future planned town centres such as the Wollert Major Town Centre, the Donnybrook/Woodstock Local Town Centres, and the Principal Activity Centre at Lockerbie, will service the future needs of precincts with higher level facilities and employment opportunities.

Shenstone Park is included in the *North Growth Corridor Plan*<sup>ii</sup> which is a high level integrated land use and transport plan that provides a strategy for long term development in the northern growth corridor area of Melbourne. It identifies broad transport networks, industrial and employment zones, residential areas and recreation precincts. It is anticipated that Shenstone Park will be home to approximately 10,244 people in the next 20-30 years, contributing to the projected population of over 379,000 residents within the City of Whittlesea by 2041<sup>ii</sup>.

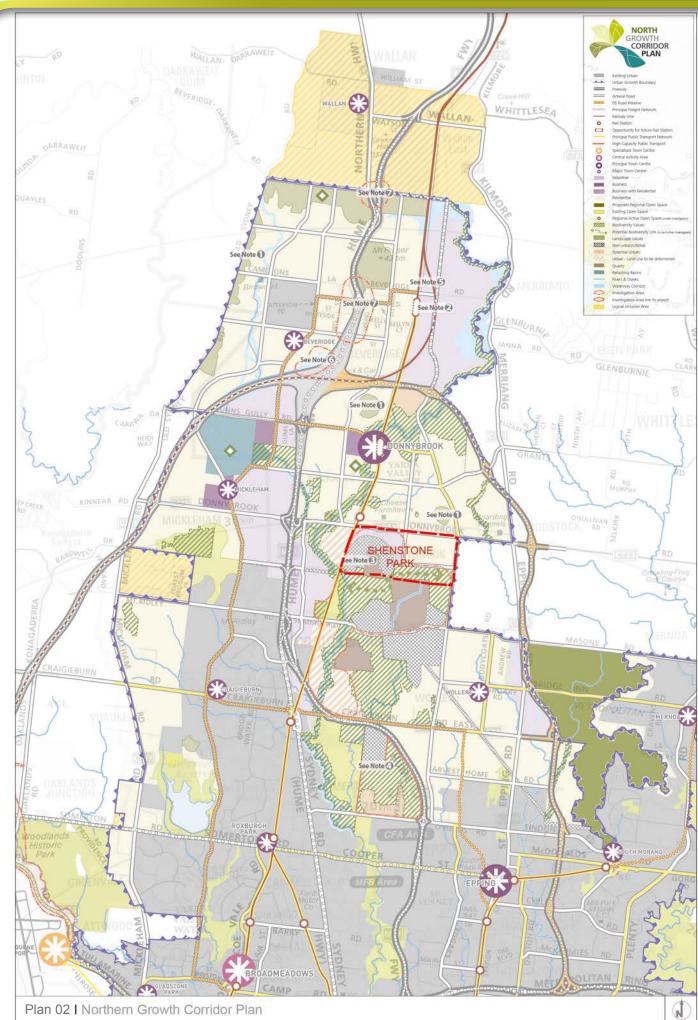
The location of the PSP adjacent to the Craigieburn North Employment Area, Hume Freeway and Sydney/Melbourne Railway Corridor makes Shenstone Park ideal to contribute to the employment hub identified within the North Growth Corridor. Shenstone Park is well placed to play a vital role in the provision of industrial, bulky goods and warehousing activities and diversify its economy with new industrial area and business area contributing to growth and variation of uses. It will contribute to the targeted 83,000 or more new jobs<sup>ii</sup> across the northern corridor.

Nominated 'Employment' land use areas within the Shenstone Park PSP will contribute to the achievement of greater diversity of employment opportunities in the North. It provides opportunities to integrate a mix of employment uses which connect directly to the arterial road and national railway systems.

The local needs of the community will be serviced by a Local Town Centre, located centrally within the Shenstone Park PSP. The Shenstone Park Town Centre will be self-sufficient mixed use centre with a retail core supported by a select range of commercial, education, recreation and civic uses providing residents easy access to this range of day-to-day services.

A number of areas have been identified as having biodiversity and landscape values, relating to stony rises and native vegetation, with the Shenstone Park PSP. Approximately 69 hectares has been nominated for conservation purposes.







# 2.2 Future Development and Community

The PSP will outline and manage the growth of the Shenstone Park area from an historic agricultural settlement, to a thriving part of Metropolitan Melbourne. The Shenstone Park Local Town Centre will form the heart of the Shenstone Park PSP while being at an appropriate scale, design and location to service the future residential community within the Shenstone Park community, and to compliment centres proposed in the future Donnybrook, Woodstock and Lockerbie Precincts.

The town centre will provide opportunities to blend medium density residential with mixed use and retail, with supporting community, open space and recreational facilities. The town centre will have a main street focus and will provide a core retail area appropriately located to support a supermarket anchor, along with opportunities to provide a limited range of fine grained small local enterprises and commercial uses.

The Shenstone Park residential area will provide a diversity of housing options. At full development, it is estimated that the PSP will accommodate approximately 3,659 new dwellings based upon an average density of 18.9 lots per hectare. It will be a scale in which local level facilities such as a school and open space can be delivered to service the new communities. The PSP will provide employment opportunities through the provision of land zoned for industrial, commercial, retail and bulky goods uses which (at the time of writing this report) is expected to create over 3,938 full time equivalent jobs in the long term.

Growth within the precinct will be supported by new and improved transport works. Public transport access will be by bus in the first instance, and regional rail services from Donnybrook Station, with potential for rail services to be upgraded via the electrification of the railway line. The PSP also identifies future upgrade works to Donnybrook Road and the future construction of Koukoura Drive a north-south arterial road connecting the precinct to the Beveridge Intermodal Freight Terminal to the north and Cooper Street Employment Precinct to the south. These works will improve transport access in a rapidly developing area and will provide an important linkage between communities and to housing, jobs and services.



## 2.3 Surrounding Areas

A number of new settlements are currently planned or being developed around Shenstone Park. Surrounding land uses and developments relevant to the precinct include:

### **Donnybrook/Woodstock Precinct Structure Plan**

The Donnybrook/Woodstock PSP is immediately north of the Shenstone Park PSP. Spanning the Shire of Mitchell and City of Whittlesea, the Donnybrook/Woodstock precinct is projected to have a future population of 46,700 people and a yield of 16,700 dwellings.

The precinct is generally bounded by the E6 – OMR reservation to the north, Donnybrook Road to the south, Merriang Road to the east and the Sydney/Melbourne Railway Corridor to the west. The precinct includes a total area approximately 1785 hectares and its future land uses will be predominantly residential with the provision of five local town centres of varying scales.

The local town centres will be accommodating a mix of retail and community uses, and when combined with additional employment opportunities it is anticipated the Donnybrook/Woodstock precinct will accommodate 3,300 jobs.

#### **English Street Precinct Structure Plan**

English Street is located immediately west of the Shenstone Park PSP. The PSP area is generally bound by the Merri Creek to the west and south, Donnybrook Road to the north; and the Sydney/Melbourne Rail Corridor to the east. The precinct includes a total of 143 hectares and its predominant future land use will be residential in nature. English Street is projected to have a future population of 3,500 and yield of 1,250 dwellings. Furthermore, English Street provides for a significant employment precinct adjacent to Donnybrook Road and the Sydney/Melbourne Railway Corridor. It is anticipated that this precinct will provide a job yield of 770 jobs.

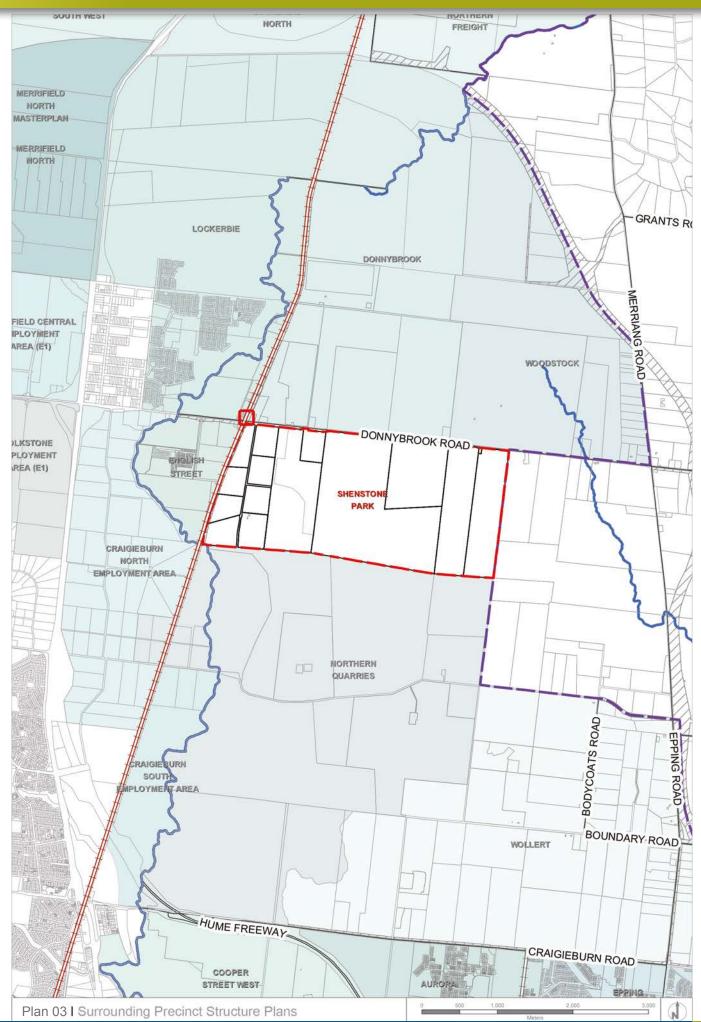
## **Lockerbie Precinct Structure Plan**

Applying to some 1122 hectares of land, the Lockerbie PSP is located immediately west of Donnybrook/Woodstock and is predominantly located within the City of Hume with some encroachment into the Shire of Mitchell and City of Whittlesea. The PSP was approved in 2012 and will be home to 28,600 residents and accommodate 10,200 dwellings. The main function of the Lockerbie PSP is to locate a future Principal Town Centre that was first identified in *Melbourne 2030*. The Lockerbie Principal Town Centre will serve a regional role and function providing the location of higher order health, education and shopping facilities as outlined in the *North Growth Corridor Plan*<sup>ii</sup>.

## **Craigieburn North Employment Area Precinct Structure Plan**

The Craigieburn North Employment Area is located immediately west of English Street and South-West of Shenstone Park within the City of Hume. The main purpose of this PSP is to provide a mixed employment area that services the Northern Growth Corridor of Melbourne. The precinct is to provide 8,200 jobs from a mix of industrial, retail and office based land uses. No residential development is planned for the precinct.







# 2.4 Key Transport Corridors

## **Sydney-Melbourne Rail Corridor**

The Sydney/Melbourne Rail Corridor is a dual-track track regional passenger and freight rail service between Sydney and Melbourne. Future rail network upgrades are proposed to electrify the railway to Wallan and an upgrade of the Donnybrook Station.

## **Hume Freeway**

The Hume Freeway is a major freeway linking Sydney and Melbourne located west of the Shenstone Park area. Locally the north-south freeway connects to Melbourne's freeway network via the Metropolitan Ring Road and splits the Northern Growth Corridor. Direct access to the Hume Freeway from Shenstone Park is via Donnybrook Road.

## **Outer Metropolitan Ring Road (OMR)**

The OMR is a proposed freeway incorporating four rail tracks within its median, connecting the Hume Freeway at Kalkallo with the Princes Freeway near Werribee. Whilst not directly impacting the Shenstone Park PSP, the OMR will create significant access opportunities for the eastern portion of the precinct, via Donnybrook Road.



# 3.0 KEY OPPORTUNITIES AND CONTSTRAINTS

## 3.1 Transition of Land Use

Shenstone Park currently comprises a range of pastoral and agricultural land uses, primarily used for grazing, as well as existing industrial uses including a sandstone quarry (which excavates and blasts rock). The area will undergo a full transition of land use as part of large scale residential, commercial and industrial development, with considerable population increase and demographic change. Although development of the precinct will take place over twenty to thirty years, based on the population growth rate in the area over that period – approximately 10,244 residents will be accommodated within Shenstone Park, contributing to the projected population of over 379,000<sup>iii</sup> residents within the City of Whittlesea by 2041 – is rapid in the Melbourne context and requires comprehensive delivery of community infrastructure and open space to support it. The infrastructure must support activities that will build a strong sense of community, like that available in established suburbs where the development of community uses has taken place over much longer periods of urban development.

## 3.2 Co-locating Compatible Uses

Best practice approaches to community infrastructure promote the co-location of community infrastructure with other complementary services to strengthen the development of community hubs. There may or may not be interaction between these facilities. Together, however, they create a focal point for community activity and allow people to make a single trip to access a wide variety of services. These hubs can be large in size and include facilities (Council and non-Council) which serve a major town centre catchment or smaller in size and comprise facilities that cater for a local town centre or local convenience catchment area.

Co-location can often provide greater land use efficiencies by enabling the sharing of resources. For example, there are opportunities to maximise land efficiencies through the co-location of public open space with schools in strategic locations. School sites can be located adjacent to areas of public open space, creating an opportunity for greater land use efficiencies through the shared use of school grounds and public open space. Other potential benefits of co-locating include various recreation and/or community facility options being available in one destination and opportunities to minimise infrastructure duplication (e.g. car parking). The proposed land uses within Shenstone Park should consider the provision of configuring related activities in a compact manner in order to optimise the use of land and achieve synergies.

The opportunity to co-locate or share spaces depends on a number of key considerations. These include, but are not limited to:

- Ensuring that uses and activities are compatible, complimentary and have the ability to support each other;
- Ensuring that the types of facilities and services provided are adequate with the scale of the overall facility and the
  area in which it is located;
- Ensuring that there is a shared and agreed understanding of usage requirements; and
- Ensuring that the catchment is not reduced from the co-location of multiple community uses.

The key outcome from co-location and shared use is to ensure the 'optimal' use of assets/open space. In many instances 'maximising' usage results in significantly increased maintenance costs (unsustainable usage levels) or lack of access to new or emerging groups within the community who lose out to larger groups, Shenstone Park will need to consider this.



## 3.3 Accessible and Connected Facilities

The location of community facilities will affect people's use and connection to the services provided. The location should also maximise accessibility through good access to public transport (multi-nodal where possible), pedestrian and cycle paths.

Plan Melbourne 2017-2050<sup>iv</sup> is focused on providing 20-minute neighbourhoods. This means the ability to meet every day, non-work needs locally, primarily within a 20-minute walk. For a community to thrive, the community services need to be easily accessible for everyone.

Planning for new facilities should consider the broader precinct's context and linkages that provide good access and placement in a high profile and visible location in addition to the co-location and siting near other compatible services such as schools, commercial and retail opportunities and open space. Providing infrastructure in central locations improves the community's capacity to access facilities and services by public transport and active transport such as walking and cycling.

Community facilities should be central to their neighbourhood catchment and where people can access them conveniently, including by public transport and ideally as part of their daily travel routine (i.e. near town centres and community hubs). It is also important to ensure that each neighbourhood has safe, walkable connections to public transport stops and local facilities.

The precinct should promote connected on and off road path networks that allow for bike and pedestrian use and links to key facilities. Where appropriate, paths should be through and around sports reserves and local parks which link the facilities and connect to the main path network.

# 3.4 Early and Staged Delivery of Community Facilities

The Shenstone Park PSP area is planned to be a self-contained community. However, during the early stages of development, infrastructure contributions may not yet be sufficient to fund the purchase of public land and construction of community facilities.

During the early stages of development, opportunities for use of shared or temporary spaces should be sought to assist in the delivery of early services. Examples of integration may include:

- Expansion of existing public buildings for community services to provide meeting rooms and educational spaces;
- Negotiated shared use of school facilities for meeting spaces and sport facilities for local sports clubs;
- · Provision of maternal and child health services through community health centres and schools; and
- Design facilities to accommodate interim uses (e.g. planning for playgroup equipment on land nominated as ultimate
  development for a future public use)<sup>v</sup>.

Forging partnerships with the private and public sector can assist in delivering early facilities and services to the community. In some instances, partnerships between organisations have assisted in early provision of services. For example, partnerships can be developed with non-government providers (such as education institutions, clubs and places of worship) to allow general public access to underutilised facilities at certain times of the day/week for social services and programmes. Community centres have been established in new areas by developers to provide flexible early community space at low cost, for example at Laurimar Café in Doreen. Churches and schools will often include potential meeting spaces. Relocatable buildings have also been used by Councils in some Greenfield precincts to enable the provision of services to newly established communities.

Partnerships and collaborative arrangements will be critical in Shenstone Park to support the delivery of community infrastructure and local services during the earlier stages of development. Local and state government, non-government organisations and developers will have a role to play in developing innovative delivery models to ensure resources are available to the community.



# 3.5 Provision of Flexible and Adaptable Community Facilities

Planned infrastructure must avoid being overly prescriptive for communities whose needs will evolve over the life of the precinct's development. As the community grows, facilities will need to become more responsive to equitably cater to the needs of different target groups, including women and girls, young people, older people and people from different cultural backgrounds. Families and first time homeowners are generally attracted to Greenfield suburbs due to the affordability and the appeal of more generous private space, parks and local services such as child care and a range of housing options. It is important that services are relevant to local residents and can be flexible enough in their design to respond to changing needs of a growing and maturing community. Fundamentally, the infrastructure provided must be capable of adapting to local circumstances and cater to the changing community needs and aspirations of its users and support a more diverse population

Models for community infrastructure capable of accommodating a variety of programs and services and having the flexibility to change functionality over time will be necessary. The needs and interests of the local communities may change and therefore community infrastructure must be able to respond by allowing for change in uses. For example, proposed models for community infrastructure should aim to respond to changing trends in sports participation, with open space available for a range of uses and catering for both formal and informal activities suitable for all groups within the community.

It is important when planning for future community infrastructure that consideration is given to the staging of facilities and to reassess population projections, demographics and aspirations. This may give some guidance as to where future capacity may be required in the planned facilities. It is also particularly important to identify which groups of the community might be benefitting or missing out from the way that infrastructure delivery is prioritised.

Short term and long term benchmarks, for example, have been developed for kindergarten rooms. Short term benchmarks respond to the short term peak of population that generally occurs during the first ten years of development of the new community. This is applied collaboratively with Growth Area Councils and key service delivery partners. Once the provision requirements for the number of rooms is established for the short term and long term, consideration needs to be given as to how kindergarten rooms that are no longer required once peak demand has subsided convert into a new use. As a general rule, these rooms should be designed as adaptable multi-use rooms that can be repurposed to support other community uses after the peak has subsided<sup>vi</sup>.

An example of planning for kindergarten rooms in the short and long term include planning a community facility that comprises four kindergarten rooms where at least one room has been designed so that it can be easily repurposed to support an alternative compatible community use (i.e. senior citizen activities or community art). Furthermore building multifunctional spaces could initially meed kindergarten requirements but if the demand for services changes; the multifunctional spaces could be adapted to support a range of school and community activities.

Another example of planning for kindergarten rooms is integrating several kindergarten services into primary schools with the intention of converting the kindergarten room into classroom space in the long term.



# 3.6 Existing Community Facilities

There is currently no existing community infrastructure within the Shenstone Park PSP area.

The Donnybrook Settlement does not have any school or community facilities. The nearest existing primary schools are located either in Craigieburn, Epping North or Mernda (all in excess of 10 kilometres). This is likely to present a significant demand on the provision of student places and accessibility for residents. It is unlikely that these areas will be able to assist in servicing residents from Shenstone Park.

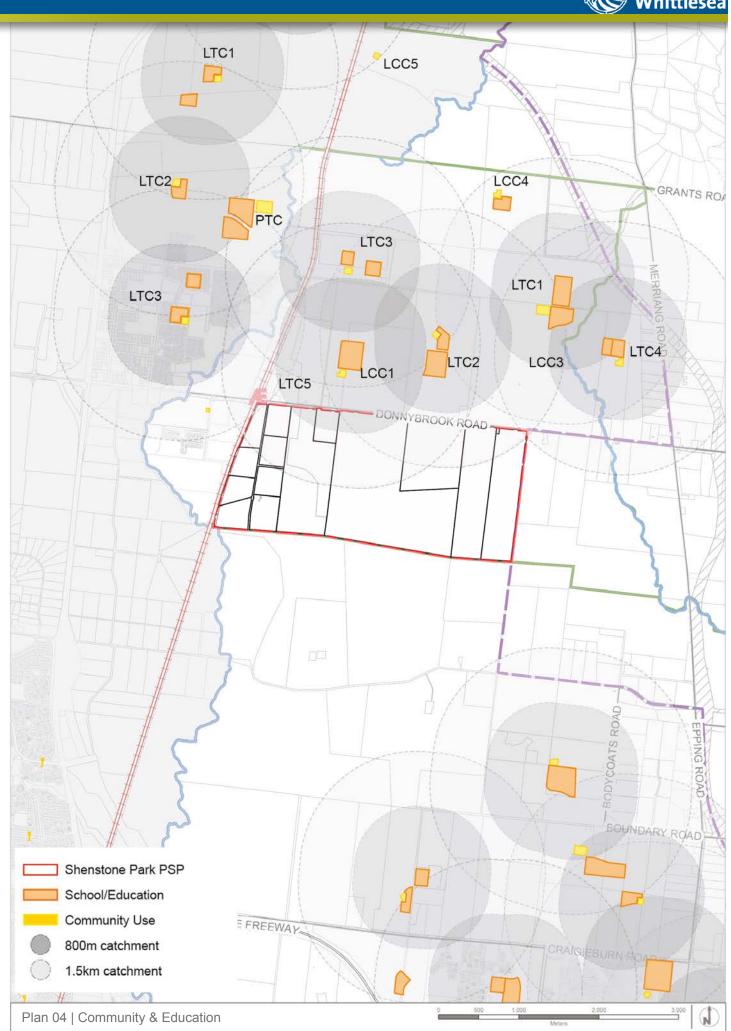
The Lockerbie, and Donnybrook/Woodstock Precinct Structure Plans both have the provision for school facilities. Plan 04 shows the location of each school and the walkable catchment distances of 800m and 1.5 kilometres of each government primary school. Non-government schools and government secondary schools have larger catchments. Appendix B identifies the size and type of each school facility within the Donnybrook/Woodstock precinct. Donnybrook in particular has the provision for a Primary and Secondary School approximately 500m from the Shenstone Park PSP. It is unknown the exact timing on the delivery of these facilities, but it is likely in the early 2020's. Until Shenstone Park becomes self-sufficient it is likely that the Donnybrook/Woodstock precincts will be required (and able) to accommodate any demand generated by Shenstone Park residents.

The John Laffan Recreation Reserve is the sports and recreation reserve for Donnybrook and Kalkallo Settlements, situated off Donnybrook Road within the Craigieburn North Employment Area. The reserve site covers 6.7 hectares and comfortably caters for the existing population, access to the reserve will be provided by embellished roads from the English Street PSP. A number of sporting and recreation facilities have been identified within the Donnybrook/Woodstock PSP area, these facilities will be able to accommodate Shenstone Park residents in the short term.

Donnybrook Settlement does not have a community hall. A number of Community Activity Centres and active recreation reserves are proposed within the Donnybrook/Woodstock PSP, as is a standalone Council Community Facility within English Street. It is considered that the provision of these community infrastructure items will assist in meeting the demands of the Shenstone Park community in the interim.

Nonetheless, although adjacent to future development areas which will have some community infrastructure, some accessibility to these facilities from Shenstone Park is likely to be hindered due to the major transport corridors that form the northern and western boundaries of the PSP area. Pedestrian movements in particular are likely to be affected. Given this, priority must be given to the careful early staged delivery of community infrastructure facilities to the Shenstone Park area to immediately reduce reliance on adjoining areas.







# 3.7 Physical Site Constraints

The proposed location of the community hub within Shenstone Park needs to take into consideration the local topography and restrictions from existing infrastructure barriers, as well as direct access to community infrastructure and open space.

The Woody Hill is the dominant landscape feature that occupies the majority of the western third of the Shenstone Park PSP. The hill is currently being quarried for sandstone material. The quarrying operations create a significant barrier to location of community facilities. Guidelines with respect to location of sensitive uses in proximity to quarries have been adopted by the Environment Protection Authority (**EPA**)<sup>vii</sup>. These guidelines set out minimum separation distances of 500m to account for dust, noise, vibration and flyrock, and have been considered in the location of the Shenstone Park community hub, which effectively does not enable the location of the centre or outdoor recreation – informal or formal – anywhere within the western third of the Shenstone Park PSP area. These buffers are being tested and refined through a separate assessment.

Furthermore an approved quarry is also located immediately south of the Shenstone Park PSP. The quarrying operation on this land is likely to be similar to those currently being undertaken at Woody Hill. The same EPA guidelines have been applied and separation distances from the extent of the quarrying are likely to encroach into the southern limits of Shenstone Park, further limiting the location of the community hub and sporting facilities in terms of suitability for construction whilst quarries are in operation thus affecting the ability to deliver the necessary community facilities within the timeframe required by the developing community.

In addition to the quarries, existing utility easements (gas) and infrastructure (sewerage treatment processing plant) within and adjacent to the precinct impose some further constraints on locating community infrastructure and open space. The APA Gas Pipeline traverses the eastern third of the PSP area whilst a future Sewerage Treatment Processing Plant is to be located to the south of the PSP area adjacent to the future quarry. Both infrastructure items have minimum separation distances that must be considered<sup>viii</sup>.

Although presented with a number of significant site constraints, Shenstone Park is fortunate enough to have a number of significant River Red Gums and stony rises scattered throughout the precinct. These features will provide a unique visual contribution to the landscape and will contribute to the precinct's sense of place and identity. Where possible any community facilities should not impact on the visual significance of these features but rather complement them to contribute to the overall sense of place.



# 4.0 DEMOGRAPHIC PROFILE

Population forecasts and demographic trends will impact on the future demand for community infrastructure in Shenstone Park.

## 4.1 Population and Dwelling Forecasts and Assumptions

At full development it is anticipated that the Shenstone Park PSP area will be home to approximately 10,244 new residents. This is based on approximately 193.62 hectares of land available for residential development. Shenstone Park will not be required to meet additional demand for community infrastructure from surrounding suburbs and nearby master planned communities. The Lockerbie and Donnybrook/Woodstock PSPs, have both addressed the community infrastructure required to support their projected future populations with some demand expected from beyond these precincts.

The VPA's PSP Guidelines mandate that an average net density of 15 dwellings per hectare or more is to be achieved across all residential PSP areas as part of an effort to encourage housing choice, density and affordable places to live. Recent subdivision developments within the Whittlesea portion of the Northern Growth Corridor have achieved higher 'per hectare' densities that average 16.5 dwellings per hectare.

**Table 1 Shenstone Park Dwelling and Population Forecasts** 

	Hectares	Dwellings	Population
Total precinct area	628.22		
Total developable area	324.88		
Net developable area - residential	193.62	3,659	10,244
Net developable area - employment	131.26		

The above table (Table 1) provides a brief summary of land available for both employment and residential development. The table indicates that the minimum dwelling yield anticipated for Shenstone Park is 3,659 new dwellings and 10,244 new people based on an average 18.9 dwellings per hectare. The amount of residents anticipated is just above the 'tipping point' for the provision of particular community infrastructure and open space requirements between Level 1 and Level 2. The higher the density the more likely Level 2 provisions will become more important for consideration.

The Shenstone Park residential area has adopted 18.9 dwellings per hectare density for the calculation of community infrastructure and open space provision in order to more accurately reflect future development outcomes in the North Growth Corridor. It should be noted that the change in net density from 17 to 18.9 dwellings per hectare will have implications for the 'tipping point' of 10,000 residents. If 17 is the applied rate the population of Shenstone Park, given the increase of density within the walkable catchment to the Local Town Centre, will decrease to 9,216, thus under the threshold for Level 2 community infrastructure provision. If 18.9 is the applied rate the population will increase to 10,244, thus being above the 'tipping point' for consideration of Level 2 community infrastructure.

There are a number of new estates under construction in proximity to Shenstone Park that are being developed at around the densities envisaged within their respective PSPs. Densities around town centres are encroaching on 18 dwellings per net developable hectare but this is not overall contributing to a significantly higher net developable area.

It is important to consider recent development and subdivision patterns and likely yields within the municipality by looking at a range of densities and apply them to community infrastructure benchmarks. This will determine whether the planned community infrastructure and open space provisions will meet the needs of potentially higher (or lower) future population and to identify the 'tipping point' for additional infrastructure and open space. In the instance where population or dwelling yield does not reach the benchmark for certain infrastructure items but comes reasonably close it will be important to consider these recent trends together with the potential medium density development when making final decisions.



**Table 2 Dwelling and Population Forecasts Based on Changed Densities** 

	Dwellings (17 dwellings per hectare)	Population	Dwellings (18.9 dwellings per hectare)	Population
Residential yield assumption	3,292	9,216	3,659	10,244

# 4.2 Demographic Trends and Assumptions

A review of age structure and household types for established Greenfield suburbs in the City of Whittlesea can help understand the future demographic profile for Shenstone Park. The Epping North Growth Corridor contains a number of master planned communities including Lyndarum and Aurora which are rapidly developing. This area is comparable to the future Donnybrook/Woodstock, English Street and Shenstone Park joint development area.

Development for the Epping North corridor commenced in the early 2000s on Greenfield land with construction of the Lyndarum Estate. Growth in the Epping North area has occurred rapidly from 2005 and between 2011 and 2017 the population increased from 11,825 to 27,967 residents. Ultimately it is expected that the area will accommodate a population of 54,909 by 2041<sup>III</sup>.

Epping North has undergone rapid growth over a sufficient timeframe to create demographic data over that time. Epping North demonstrates the base pattern of development within the North Growth Corridor as it relates to the City of Whittlesea. The nature of growth for Epping North is considered to be similar to that anticipated for Shenstone Park and adjoining PSP areas.

The projections illustrated in Table 3 and Table 4 below detail the likely age profiles and household composition patterns for Epping North based on recent data available. It is anticipated that residents of these areas are more likely to reflect an age profile similar to Shenstone Park, given that Shenstone Park is likely to attract similar new residents.

**Table 3 Epping North Current Age Structure (2016)** 

Demographic	Age Group (Years)	Percentage of Population
Babies and Pre-schoolers	0-4 years	11.3
Primary Schoolers	5-11 years	11.6
Secondary Schoolers	12-17 years	7.3
Tertiary Education and Independence	18-24 years	9.7
Young Workforce	25-34 years	21.9
Parents and Homebuilders	35-49 years	23.3
Older workers and pre-retirees	50-59 years	8.4
Empty nesters and retirees	60-69 years	4.4
Seniors	70-84 years	1.8
Elderly Aged	85 and over	0.3

 $id~(2017).~City~of~Whittlesea~Population~Forecast.~Accessed~5~Oct~2017; \\ \underline{http://forecast.id.com.au/whittlesea/2017}.$ 



Table 4 Household Composition – Epping North (2016)

Household Composition	Percentage of Population
Couples with Children	51.0
Couples without Children	20.6
One Parent Families	9.4
Group Household	1.6
Lone Person	10.8
Other families	6.6

id (2017). City of Whittlesea Population Forecast. Accessed 5 Oct 2017: http://forecast.id.com.au/whittlesea/

During peak development, the dominant household type in Epping North is likely to be young families, people who have young children or are likely to be starting families in the coming years. Growth area assumptions typically show increases in the number of babies and pre-schoolers, primary school children and young workers. Knowledge of how the age structure of the population is changing is essential for planning age-based facilities and services.

These population forecasts raise a number of considerations for the planning of community infrastructure including:

- Anticipated increase in demand for early years services such as long day care, playgroups, MCH services and kindergarten, particularly related to young couples starting new families moving into the area and to families with two working parents;
- Future demand for services and programs for young people that support physical activity and encourage social connection and participation in local events; and
- Potential demand for places and spaces that support home based employment and volunteering opportunities, particularly as the population ages.

It can be assumed that young working people will be the dominant household type during the initial stages of the precinct's development.

With first homebuyers and young families currently well-represented in the Greenfield suburb, the most obvious conclusion relating to community infrastructure is the need for facilities and services that support this key demographic: maternal and child health care, kindergartens and primary schools and parks. One should also note that there will also be a significant proportion of households with no children to be represented by a mix of empty nesters and first home buyers with no children.

Facilities supporting children should be designed to be flexible. When not required for the maternal and child health service, the rooms could potentially be made available for other council and non-council community services programs that need consulting rooms. The Councils will continue to deliver the service from this multifunctional setting.

Shenstone Park will also need to plan for older members of the community, gradually requiring increased aged services and facilities over time as adult residents choose to remain within the community. It is important to note that nearly 30% of households within Epping North are not couples, some of these households likely contain multi-generational families. Whilst high level aged care facilities such as a retirement village will potentially be accommodated within Lockerbie and Donnybrook/Woodstock. Shenstone Park will also need to provide the opportunity for aged care services to complement the services provided in adjoining areas to reduce a future strain caused by over demand.



Following build out of Shenstone Park it should be anticipated that the population will age over time and living situations will change. For example, Table 5 below shows the age of children over 2011 and 2016 in Epping North showed little change proportionally to the total population, however by 2026 it can be seen that the children were getting older. It can be assumed that these areas are attracting people who are deciding to start families and want to remain in the same area whilst bringing up their children. Knowledge about how the age structure of the population is changing is important for planning age-based services and facilities, such as childcare, schools and recreation. In contrast, in 2026 there is a predicted need for a more diverse range of housing stock and community facilities as children begin to leave home increasing the number of older age group types, more typically older workers and pre-retirees as well as empty nesters and retirees.

**Table 5 Epping North Forecast Age Structure** 

	2011 2016		2026	;	Change 2016 to 2026			
Demographic	Age group (years)	Number	%	Number	%	Number	%	Difference in %
Babies and Pre-schoolers	0-4	1,179	10.0	2,914	11.3	4,650	9.6	-1.7
Primary Schoolers	5-11	1,211	10.2	2,978	11.6	5,915	12.2	0.6
Secondary Schoolers	12-17	956	8.1	1,877	7.3	4,143	8.6	1.3
Tertiary Education & Independence	18-24	1,199	10.1	2,506	9.7	4,339	9.0	-0.7
Young Work- force	25-34	2,750	23.3	5,643	21.9	8,303	17.2	-4.7
Parents and Homebuilders	35-49	2,741	23.2	6,001	23.3	11,479	23.8	0.5
Older Workers and Pre-retir- ees	50-59	1,012	8.6	2,160	8.4	4,646	9.6	1.2
Empty Nesters and Retirees	60-69	509	4.3	1,136	4.4	2,764	5.7	1.3
Seniors	70-84	213	4.8	462	1.8	1,542	3.2	1.4
Elderly Aged	85 and over	55	0.5	77	0.3	525	1.1	0.8
		11,825	100.0	25,754		48,306		

 $id~(2017).~City~of~Whittlesea~Population~Forecast.~Accessed~5~\&~16~Oct~2017: \\ \underline{http://forecast.id.com.au/whittlesea/2017}.$ 

It is also worth noting that for the broader Epping North and Wollert area, 42.4% of the population (10,860 residents) was born overseas<sup>ix</sup>. Table 6 identifies the top 10 places of birth and identifies a significant portion of the population has a sub-continental background. These trends in the ethnic makeup of the area are likely to play a significant role in the likely demand and type of facilities required and should be noted for the development of the Shenstone Park precinct.



Table 6 Epping North/Wollert Top 10 Foreign Birthplaces (2016)

	2016			
Birthplace	Number	%		
India	3,413	13.3		
Sri Lanka	823	3.2		
Former Yugoslav Republic of Macedonia	689	2.7		
Iraq	489	1.9		
Italy	458	1.8		
New Zealand	423	1.7		
Phillippines	418	1.6		
China	314	1.2		
Vietnam	261	1.0		
Pakistan	249	0.5		

 $id~(2017).~City~of~Whittlesea~Community~Profile~Forecasts.~Accessed~16~Oct~2017: \\ \underline{http://profile.id.com.au/whittlesea/2017}.$ 



# **5.0 DEMAND CALCULATIONS**

Greenfield development areas should cater for a full range of facilities and services that provide opportunities for education (primary, secondary, tertiary, vocational and adult learning), health and well-being (health and support services, emergency services, age-specific services), recreation and leisure (organised and informal sport and recreation, cycling and walking, leisure) and social and cultural interactions.

Acknowledging the many facilities and services required by the growing community, this report emphasises a need to determine social infrastructure facilities suitable for delivery using infrastructure contributions, as well as land uses that have a spatial impact (land take) associated with their provision.

The needs assessment identifies:

- Some infrastructure that is not suitable for delivery in the infrastructure contribution plan
- Items suitable for delivery in the infrastructure contributions plan
- Items that affect land take
- Provision ratios and order of each infrastructure item affecting net developable area in the precinct

The following facilities, whilst essential to the ongoing development of the precincts and the well-being of the future community and neighbourhoods, will not be funded through an infrastructure contribution plan:

- Town Centres
- Hospitals
- Places of Worship
- Emergency Services

- Residential Aged Care Centres
- Community/public art
- Schools

## Items Suitable for Delivery in the ICPx

The following facilities are eligible to be funded in whole or part by an infrastructure contributions plan for Shenstone Park, be it through provision of land or construction.

- Multi-purpose community centres
- Kindergartens
- Childcare and occasional care facility
- Playgroup facility
- Maternal and child health centre
- Library and learning centre
- Community arts and cultural facility
- Neighbourhood house
- Adult day care and activity group facility
- Youth services facility
- Delivered meals facility
- Business accelerator facility
- The ICP will also provide land for local parks.

- Outdoor multi-purpose and/or specialist provision
- Multi-purpose and/or specialist pavilion
- Local sports reserves and local parks
- Football/Cricket oval
- Soccer pitch
- Sports fields (i.e. baseball, softball or hockey)
- Tennis courts
- Hard courts (i.e basketball and netball)
- Bowling green or bocce
- Indoor recreation centres



### Items not eligible for the ICP but affect precinct net developable area

The following facilities are not eligible for funding through infrastructure contributions but will be identified in the report, if required for delivery as part of the precinct:

- Government primary schools
- Government secondary schools
- Non-government primary schools
- Non-government secondary schools
- Tertiary education facilities
- Emergency services facilities

## Provision ratios for ICP items and items affecting precinct land take

The needs analysis for facilities and open space to be delivered across the precinct is undertaken by predicting the future population and/or NDA and by applying an indicative provision rate for each type of infrastructure.

Provision ratios guide how much community infrastructure is to be planned for the future population. The community infrastructure items selected for this assessment and the provision ratios used are generally based on those identified in the *Planning for Community Infrastructure in Growth Area Communities: Standards Project*<sup>xi</sup>.

The population and dwelling yields used for calculating future demand for community infrastructure and open space in Shenstone Park is based on 10,244 future residents and 3,659 future dwellings.

## 5.1 General Community Facilities

The community facilities identified in this section of the report includes only Level 1 and Level 2 type facilities. The population and dwelling projects for Shenstone Park do not reach the benchmark provisions for Level 3 type facilities (see Appendix A for *Community Infrastructure Hierarchy\*i*).

Table 7 Needs Analysis of Community Infrastructure based on Population Projections for Shenstone Park

	Level 1	Level 2			
	Multipurpose Com- munity Centre	Neighbourhood House	Kindergart	en Rooms	Maternal and Child Health Con- sulting Rooms
Land take for facility	0.8 hectares	0.4 hectares	None (to be delivered on land for community centres) or school land if in the same precinct	None (to be delivered on land for community centres)	None (to be delivered in land for community centres)
Provision ratio	1 per 8,000 people	1 per 20,000 people	Short term - 1 per 1,400 dwellings	Long term - 1 per 2,100 dwellings	1 per 16,000 people
Demand analysis	1.28	0.51*	2.61	1.74	0.64
Proposed provision	1	1	3	2	1

<sup>\*</sup>Consideration has also been given to the provision of infrastructure that has been supplied within the Donnybrook/Woodstock PSP to accommodate demand from Shenstone Park. See Appendix B for the proposed community infrastructure to be delivered within the Donnybrook/Woodstock PSP.

## **Multi-Purpose Community Centres**

Multi-purpose community centres play an important role in accommodating flexible spaces (including large format meeting spaces) for a combination of community uses and activities. They cater for maternal and child health, kindergartens, child care, youth services, lifelong learning, community art, senior citizens clubs and cultural groups as well as being available to hire for community and private functions.



ASR Research's provision ratios recommend one multipurpose community centre (Level 1) per 8,000 people and one neighbourhood house per 20,000 people (Level 2). Table 7 indicates there is only a need of one multipurpose community centre in Shenstone Park, in other words there is 0.8 hectares of land required to accommodate community facilities to support the future population of Shenstone Park.

However no neighbourhood house has been provided within the Donnybrook/Woodstock PSP. It is considered that for the benefit of the Shenstone Park community and as well as some residents of the Donnybrook/Woodstock that the provision of a neighbourhood house should be made within the Shenstone Park PSP, bringing a total of 1.2 hectares being required. The lack in demand for these facilities required by Shenstone Park residents alone will be offset with a demand from adjacent Donnybrook/Woodstock residents.

In regards to delivery models, community centres should typically be co-located with government primary schools as part of a community hub, preferably with no road separating the two uses. By having a range of services and facilities (e.g. schools, kindergartens and maternal and child health) in one hub effectively creates a 'one-stop-shop'. The hubs are planned to be close to public transport and the local shopping trip. This means it becomes accessible for most members of the community.

#### Kindergarten Rooms and Maternal and Child Health

Kindergarten rooms are typically delivered as part of a multipurpose community centre with the provision of two to three kindergarten rooms per facility. There is also the potential that kindergartens can be accommodated within primary schools.

Kindergarten and maternal and child health rooms should allow for flexibility and re-adaption. Flexibility enables accommodation for a range of users and groups and a focus for the potential service delivery of playgroups, youth services and consulting suites for outreach services. This reflects the move away from single purpose facilities in order to better meet the needs of diverse community groups. This allows for more efficient use of infrastructure and supports the delivery of community services such as Early Years Services, Youth Services, Community Arts and Cultural Diversity

It can be difficult to make a clear link between population growth and demand for specific activities such as senior centres, youth centres or community learning centres as needs vary over time and between communities as demographics, socioeconomics and local circumstances change. Flexibility can provide for most of these activities and can be modified when required to meet changing needs.

Nonetheless, Table 7 indicates two kindergarten rooms should be delivered at a ratio of one room per 2,100 dwellings. In the short term an alternative provision ratio is provided and recommends one room per 1,400 dwellings. Donnybrook/ Woodstock is providing four dual room kindergartens and two triple room kindergartens, six more than is required for development area that will service an area containing 16,700 dwellings<sup>xii</sup>, noting that these rooms will be adapted to respond to the changing demographic context of the area.

With respect to community centres, Whittlesea City Council's preferred delivery model is three kindergarten rooms per centre. In the short term, three rooms in total are recommended, however in the long term, only two rooms are likely to be required. The City of Whittlesea has advised that, since 2013 it has been standard practice that three kindergarten rooms are provided for new community facilities and that the use of the third room will be reviewed if there is a change in community needs. Furthermore, at the time of delivery this will require to be reviewed against the regulatory framework which defines staff to children ratios and service viability and population projections. The delivery model from the short term to the long term requires flexibility in the design of the facility to enable a change in the use if required.

A single nurse maternal and child health consulting room facility is recommended for Shenstone Park and it should be colocated with the kindergarten facility. These facilities should be integrated with the Level 1 community centre, requiring no additional land take. Building in a level of flexibility within the community centre for multi-purpose rooms that can accommodate additional demand should be considered.

Donnybrook/Woodstock is providing eleven permanent maternal and child health rooms (a minimum requirement of three for a population of 46,700<sup>xii</sup>, again noting that these rooms are likely to be multi-purpose and readapted for a different use as the community's needs change), as well as a flexible maternal and child health room that will also be used for other activities. It is considered that the additional rooms provided within Donnybrook/Woodstock will be able to meet any additional demand generated by Shenstone Park.



## 5.2 Education

The community facilities identified in this section of the report includes only Level 1 and Level 2 type facilities. The population and dwelling projects for Shenstone Park do not reach the benchmark provisions for Level 3 type facilities (see Appendix A for *Community Infrastructure Hierarchy*\*i).

Table 8 Needs Analysis of Schools based on Population Projections for Shenstone Park

	(	Government School	ls	Non-	Government Sch	ools
	Primary	Secondary	Specialist	Catholic Primary	Catholic Secondary	Other
Land take for facility	3.5 hectares	8.4 hectares	2.6 hectares	2.6 hectares	7.0 hectares	8.0 hectares (indicative)
Provision ratio	1 per 3,000 dwellings	1 per 9,000 dwellings	1 per 60,000 dwellings	1 per 8,000 dwellings	1 per 32,000 dwellings	1 per 40,000 people
Demand analysis	1.22	0.41	0.06	0.46	0.11	0.26
Proposed provision	1	0	0	0	0	0

## **Government Schools**

Primary schools are provided within Donnybrook/Woodstock, however these are only likely to accommodate Shenstone Park residents in the interim as the provision matches the expected demand generated for 16,700 dwellings of the precinct. Ultimately Shenstone Park will need to have its own provision, and the provision rate for new primary schools in growth areas is one per 3,000 dwellings. The predicted dwelling yield for Shenstone Park at full development suggests the need for approximately one 3.5 hectare government primary school.

Provision rates for new secondary schools within Greenfield areas are one per 9,000 dwellings. Shenstone Park does not have a projected dwelling yield that triggers the need for a government secondary school. If to apply a dwelling yield based on a higher density (i.e. 20 dwellings per hectare) the benchmark is still not met for the provision of a Government secondary school in the precinct.

Government secondary schools are proposed in the future Lockerbie and Donnybrook/Woodstock communities and will have the capacity to support future Shenstone Park residents. The road and shared path network has been designed in a manner that ensures direct and safe links through the PSPs to the proposed nearby secondary schools. Donnybrook Road presents the biggest barrier to pedestrian connectivity between Shenstone Park and Donnybrook/Woodstock PSPs. To improve accessibility a pedestrian underpass will be provided under Donnybrook Road adjacent to Donnybrook station to accommodate residents in the west, and a pedestrian only traffic crossing of Donnybrook Road is proposed near Koukoura Drive to accommodate residents in the east.

The indicative provision rate for government specialist schools is one per 60,000 dwellings. A specialist school has not been identified in the precinct. Although Shenstone Park does not have dwelling yield support a future school, the combined Lockerbie, Donnybrook/Woodstock and Shenstone Park area collectively will require provision of a specialist school. Discussions with DET have confirmed that this will be delivered within the Lockerbie PSP.

## **Non-Government Schools**

Catholic primary and secondary schools are specifically provisioned for in PSPs as part of the planning process and consultation is usually undertaken with the Catholic Education Office Melbourne (**CEOM**). The strategic location of school sites is part of their wider future schools mapping for the northern growth area. The need for future Catholic schools is established through forecasts of future enrolments utilising sources such as Australian Bureau of Statistics census data.

The provision rate used for new Catholic primary schools is 1 per 8,000 dwellings. The calculated provision suggests that a non-government primary school is not required. Notwithstanding this, three non-government schools (two primary and one secondary) are provided within the Donnybrook/Woodstock PSP, with additional provision also being made within the Lockerbie PSP. It is considered based on the expected population of Shenstone Park these pre-planned facilities should be able to meet the additional demand.

It should be noted that subsequent to the Precinct Structure Planning process, future school development may be approved through the normal planning permit application process.







## 5.3 Open Space and Recreation

Open space in growth area precincts should be equitably distributed across the precinct, maximising access by the local community and contributing to amenity. The VPA's *Precinct Structure Planning Guidelines*<sup>xiii</sup> state that ten per cent of the Net Developable Area in residential areas should equate to total public open space.

Table 9 Needs Analysis of OpenSpace and Recreation Facilities based on Population Projections for Shenstone Park

	Open S	Space	Leve	1 2
	Local Parks	Sports Reserves	Indoor Recreation Centre (2 Courts)	Lower Order Tennis Facility
Land take for facility	0.10 - 1.70 hectares	10 hectares or 6 hectares reserves	1.2 hectares	6 court facility 0.4 ha 8 court facility 0.6 ha
Provision ratio	4% of residential NDA	6% of residential NDA	1 per 20,000 people	1 court per 2,000 people
Calculated land take (ha)	7.74	11.62	0.51*	5.12
Proposed provision	8 Local Parks	1 x 8 ha sports reserve	0	6-court facility

<sup>\*</sup>Consideration has also been given to the provision of infrastructure that has been supplied within the Donnybrook/Woodstock PSP to accommodate demand from Shenstone Park. See Appendix B for the proposed community infrastructure to be delivered within the Donnybrook/Woodstock PSP.

The PSP and ICP deliver, as a development obligation, local space of up to 10% of residential net developable area; generally this is divided into 4% of the residential NDA for local parks and 6% of the residential NDA for local sports reserves but can be tailored to suit local requirements and conditions. As a guide, 3% to 5% of the residential NDA should be set aside for local parks and 5% to 7% of the residential NDA should be set aside for sports reserves.

The proposed breakdown of open space within Shenstone Park residential area is 4.44% for local parks and is 4.36% for recreation reserves.

## **Local Parks**

The City of Whittlesea's *Open Space Strategy 2016*xiv advises that local parks should be delivered in varying sizes catering for a diverse range of functions (i.e. gathering spaces, walking pets, linear connections, and community focal points). Furthermore it also states that these parks must be inclusive and accessible for all residents. The VPA's guidelines recommend that local parks be located within 400 metres safe walking distance of 95% of all households. They are considered as local level infrastructure and generally include paths, seats, trees, open area with basic playgrounds in most cases.

Small local open spaces (i.e. pocket parks) are typically between 0.25 and 0.05 hectares according to Council's *Open Space Strategy 2016*<sup>xiv</sup>. These spaces are highly valued in areas where provision of open space is limited and serve to create a purpose for land that may be underdeveloped. A pocket parks is proposed within the employment area of the precinct to provide amenity and respite for future workers. Pocket Parks are also proposed adjacent to significant River Red Gums to provide greater amenity, this practice is widely adopted within Whittlesea residential estates.

At the preparation of this report, 11.58 hectares of land is set aside for local parks at varying sizes across the residential and employment areas of the PSP area, and have been placed systematically to minimise walking distances exceeding 400m. A number of open space reserves are proposed to abut significant remnant vegetation, and historical features to connect people to the landscape and heritage features, whilst some other open space reserves are proposed to be co-located with active open space reserves and drainage assets to connect and make practical use of infrastructure assets.



#### **Sports Fields**

Table 9 indicates that a total of 8 ha of land for local sports reserves is to be provided within the Shenstone Park precinct. Local sports reserves should cater for the outdoor sports (netball, Australian football, soccer, cricket, tennis, hockey, baseball, softball, etc). A level of flexibility is required to ensure that the sports reserves are inclusive of diverse interests in a range of sports. Outdoor sporting facilities should be based on the needs of the community with the aim to maximise participation. Furthermore, the VPA's Precinct Structure Planning guidelines stipulate that sports reserves should be provided within one kilometre of 95 per cent of all dwellings<sup>xiii</sup>.

The City of Whittlesea's provision model promotes a range of sporting field sizes to cater for a variety of local sports activities and to respond to new patterns of sports participation. For example soccer, rugby and hockey require less space and can generally be catered for on six hectare sites while AFL ovals, cricket, softball and baseball fields require greater land takes of typically ten hectares due to dimension requirements of the fields. Noting this, there is a substantial provision being made within the Donnybrook/Woodstock PSP for AFL and cricket, it may be the role of Shenstone Park to provide non-traditional sports such as rugby, baseball or softball for example. A level of flexibility will be required to nominate the land for active recreation and to ultimately determine the appropriate open space land use.

Each sports ground also provides for wider user needs by providing play spaces for children and youth activity nodes. Furthermore, each reserve will include a community pavilion to suit the size of the park, containing facilities such as change rooms, toilets, first aid and storage. Pavilions could be costed and designed in a more flexible way rather than being designed for a single purpose to enhance their ability to accommodate a range of sports. Pavilions could also have the capacity to provide for playgroups, meeting rooms for community groups to use such as scouts and local choirs. This could also allow for the early delivery of community facilities.

#### **Tennis Courts and Hard Courts**

Tennis facilities can be co-located with sports reserves to allow shared use of facilities. Whittlesea's *Tennis Strategy*<sup>xv</sup> recommends a best practice target of one court per 2,000 people. Applying this benchmark to the future population of Shenstone Park equates to the need for approximately 5 tennis courts. The City of Whittlesea's *Tennis Strategy*<sup>xv</sup> sets a minimum of four courts per facility for standalone facilities or six courts for those to be co-located with other sporting facilities. Table 9 shows that 5 courts are required for the precinct. To be in accordance with Council's preferred provision model, it is recommended that 1.20ha of the 8ha of active open space is set aside for the provision of six tennis courts, to allow for the co-location of facilities.

The City of Whittlesea prefers the co-location of hard courts (e.g. netball), of at least six netball courts, with 10ha football/cricket ovals at no extra land take. One hard court facility is generally provided per 16,000 people and requires 0.5ha within a 10ha sports reserve. As Shenstone Park does not have the population or space available it is unlikely that this provision will be triggered.

## **Indoor Recreation Centre**

Growth Area benchmarks trigger the need for one publically provided indoor recreation centre. Benchmarks specify a provision ratio of one indoor court facility (two courts) per 20,000 people. An indoor recreation can accommodate the needs of sports such as basketball, netball, volleyball, badminton, squash, indoor cricket and soccer, table tennis and gymnastics.

Council has confirmed there is no provision required for an indoor recreation centre as there will not be a significant demand generated by the population of Shenstone Park, noting an indoor recreation centre has been nominated within the Donnybrook/Woodstock PSP.

Otherwise if an Indoor Recreation Centre is to be established within the Shenstone Park PSP, the location of the indoor recreation facility should be focused on co-location with education and community facilities. Opportunities could be explored for the shared use of indoor recreation facility



# **5.4** Emergency Services

Additional population growth in Shenstone Park may generate the need for additional emergency services and facilities. The number and type of facilities, timing of development and locations is determined by planning process undertaken by the Department of Justice and other relevant services.

There are a number of existing and planned emergency infrastructure items located within the precinct and surrounding communities. The VPA and Council will continue a dialogue with the emergency services agencies to future provision strategies and their short, medium and long term plans for the *North Growth Corridor* and how that will impact on all future PSPs. Consideration should be given to co-location of emergency services with other emergency services and community facilities particularly where services are based on volunteer participation. An emergency services facility should have main road frontage, be easily accessible and be located so that it can achieve good emergency response times.



# **6.0 SPATIAL CONSIDERATIONS**

Facilities identified through the needs analysis have been located into a community hub that will serve the whole Shenstone Park neighbourhood catchment and connect to the open space network.

## **6.1** Co-location of Facilities

As highlighted under Section 3.2, best practice approaches to community infrastructure promote the co-location of community infrastructure with other complementary services to strengthen the development of community hubs.

The Department of Education and Training<sup>xvi</sup> (**DET**) has provided a number of examples of opportunities for schools and community partners (local councils, community organisations, sport and recreation providers, other education and training provides and not-for-profit organisations) to work together and share the use of school facilities. These examples are:

- Using school premises for community halls and meeting spaces;
- Opening school facilities up for use as community recreation facilities;
- Creating spaces to support school-aged holiday, before- and after-school programs;
- Providing information technology centres for community use;
- Sharing libraries or resource centres;
- Sharing performing arts spaces;
- Co-locating preschool centres on school grounds; and
- Sharing sporting facilities.

In the past, the City of Whittlesea has entered into joint-use agreements with DET, YMCA and the CEOM, where appropriate, to ensure that shared use and maintenance of the facilities is achievable. The above examples could be achievable within the City of Whittlesea subject to future policy conditions.

Nonetheless, the City of Whittlesea has an exceptional record of delivering Community Hubs that provide co-location of facilities (including Laurimar). The hubs are co-located near local activity centres to maximise the walkability of residents to access provision for day-to day needs. This practice has been implemented in the preparation of new Community Hubs to be delivered within other PSPs including Donnybrook/Woodstock and Wollert.

The provision of the Shenstone Park Community Hub will adopt the same approach.



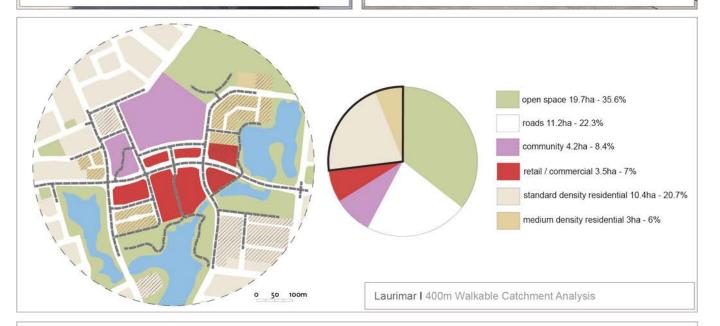








Laurimar I Town Centre Crossing





# 6.2 Shenstone Park Community Hub Provision

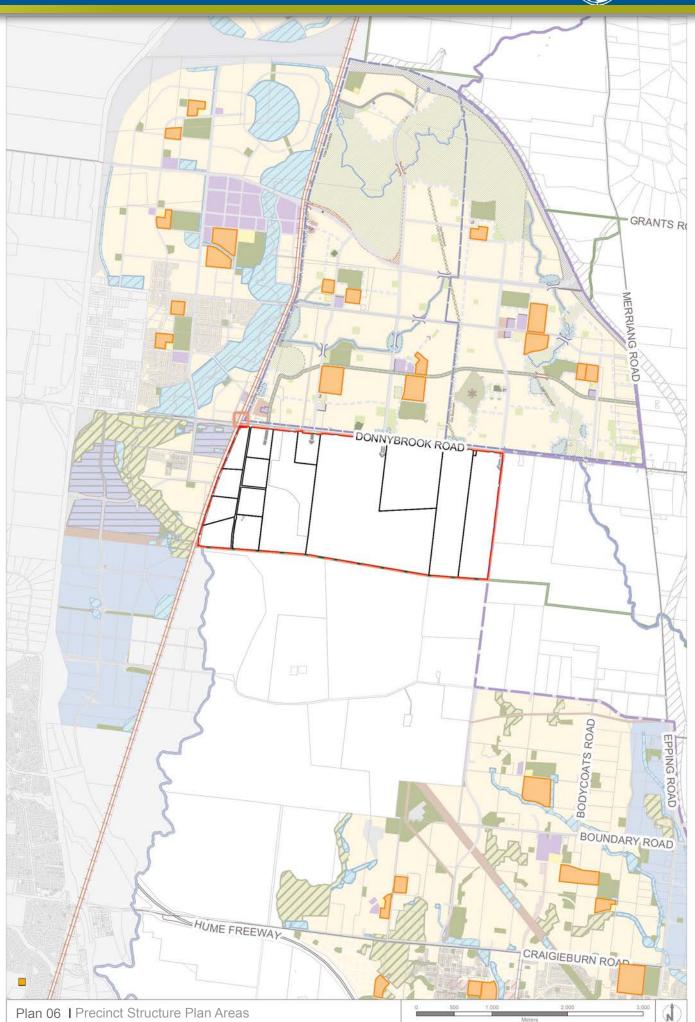
The Shenstone Park PSP will have one hub. Its composition is outlined in Table 10, as is the location of Active Open Space.

**Table 10 Shenstone Park Community Hub Provision** 

Community Hub	Facilities	Total land take (hectares)
Hub 1	Government Primary School	3.5
Tido i	Multipurpose Centre/Neighbourhood House	1.2
Sports Precinct	1	8.45

All items outlined in Table 10 except for the school are eligible for inclusion in the *Shenstone Park Infrastructure Contributions Plan* and will be fully apportioned to the precinct.







# 7.0 CONCLUSIONS & RECOMMENDATIONS

The Shenstone Park Community Infrastructure and Open Space Needs Assessment has been prepared by the Victorian Planning Authority and the City of Whittlesea to support the population growth of Shenstone Park. It provides an assessment of the future demand for community infrastructure and open space in Shenstone Park residential area and includes spatial recommendations and proposed infrastructure delivery models to meet that demand.

To deliver the necessary community infrastructure and open space in a manner that simultaneously satisfies the needs of local community catchments and attempts to provide connections between them, a 'community hub' model of delivery that links to the open space network is proposed for the Shenstone Park residential area.

The inventory of community infrastructure and open space outlined for each community hub will directly inform infrastructure contributions required as part of it development. It is intended that the community infrastructure and open space will be delivered by the Infrastructure Contributions Plan, where applicable, wholly or in part.

The main key opportunities to be considered include:

#### The co-location of facilities and services

- Community infrastructure should be co-located with complementary services as this will give the opportunity to strengthen community hubs. The precinct structure plan provides suitable conditions and opportunities for shared use facilities.
- Potential efficiencies and partnerships with private providers and non-government organisations should be explored.

#### Well-connected and accessible facilities

Facilities should be placed in high profile location to maximise the accessibility to public transport and pedestrian and
cycle paths. The location of facilities should be placed in convenient areas and visible locations that are co-located with
other services.

### The provision of flexible and adaptable community facilities

Facilities must be able to cater the needs of different target groups. As such, planned infrastructure must avoid being
overly prescriptive and be highly flexible to respond to the evolving needs of the precinct's development.

## **Respecting physical site constraints**

• It is important to acknowledge and respect significant physical site constraints. Where possible some of these constraints such native vegetation, drainage infrastructure and stony rises should be incorporated into the design of place to ensure people are connected to their environment.

## Timing and delivery of social infrastructure

- Timing and delivery of social infrastructure should be directly linked to the staging of residential and commercial development within the precinct.
- Individual community facilities may be delivered in stages to appropriately respond to need as it emerges.
- During the early stages of development, opportunities for use of shared, multi-purpose or temporary spaces should be sought to assist in the delivery of early services.

This will ensure that the community facilities provided in the Shenstone Park Greenfield development area will provide opportunities for education, health and well-being, recreation and leisure and social and cultural interaction for the emerging community.



## **8.0 REFERENCES**

- Australian Bureau of Statistics (2017). 2016 Census QuickStats: Donnybrook Suburb. Accessed 5 Oct 2017: <a href="http://www.censusdata.abs.gov.au/census\_services/getproduct/census/2016/quickstat/SSC20767?opendocument">http://www.censusdata.abs.gov.au/census\_services/getproduct/census/2016/quickstat/SSC20767?opendocument</a>
- <sup>®</sup> State Government Victoria, Growth Areas Authority, Growth Corridor Plans, 2012, Melbourne.
- iii.id (2017). City of Whittlesea Population Forecasts. Accessed 5 Oct 2017: http://forecast.id.com.au/whittlesea
- <sup>iv</sup> State Government Victoria, Department of Environment, Land, Water and Planning (DELWP), *Plan Melbourne 2017-2050*, 2017, Melbourne.
- <sup>v</sup> Queensland State Government, Office of Urban Management: Department of Infrastructure Queensland, *Implementation Guidelines No.5 Social Infrastructure Planning*, 2007, Brisbane.
- vi Capire Consulting Group, Kindergarten Infrastructure Needs Assessment in Greenfield Growth Areas, 2015, Melbourne
- vii Environment Protection Authority, *Recommended Separation Distances for Industrial Residual Air Emissions Guidelines*, 2013, Melbourne.
- viii Australian Standards, AS 2885.1, 2012.
- ix .id (2017). City of Whittlesea Community Profile Forecasts. Accessed 16 Oct 2017: http://profile.id.com.au/whittlesea
- \* State Government of Victoria, Minister for Planning, Ministerial Direction on the Preparation and Content of Infrastructure Contributions Plans and Ministerial Reporting Requirements for Infrastructure Contributions Plans, 2016, Melbourne.
- <sup>xi</sup> ASR Research Pty Ltd, *Planning for Community infrastructure in Growth Areas*, 2008, City of Melton, City of Wyndham, City of Whittlesea, the City of Casey and the City of Hume.
- xii Victoria State Government, Victorian Planning Authority, Donnybrook/Woodstock Precinct Structure Plan, 2017, Melbourne.
- xiii State Government Victoria, Growth Areas Authority, Precinct Structure Planning Guidelines, 2009.
- xiv City of Whittlesea, Open Space Strategy 2016, South Morang
- xv City of Whittlesea, *Tennis Strategy 2013-2018*, South Morang
- xvi Victoria State Government, Department of Education and Training, *Schools as Community Facilities: Policy Framework and Guidelines*, 2015, Melbourne.
- xviii Victoria State Government, Growth Areas Authority, Lockerbie Precinct Structure Plan, 2012, Melbourne.



## **APPENDICES**



## **APPENDIX A - COMMUNITY INFRASTRUCTURE HIERARCHY**

Table 11 ASR Community Infrastructure Hierarchy<sup>xi</sup>

Community Hub	Facilities	
Level 1 Provisions ratios up to 10,000 people	<ul> <li>Government Primary Schools (including out of schools hours care)/Early Years Facility</li> <li>Level 1 Council Community Centres/ Early Years Facility/ Neighbourhood House</li> <li>Level 1 Active Open Space</li> <li>Level 1 Passive Open Space (including level 1 playgrounds)</li> <li>Long Day Child Care Centres</li> <li>Social housing</li> </ul>	
Level 2 Provision ratios between 10,000 and 30,000 people	<ul> <li>Government Secondary Schools</li> <li>Catholic Primary Schools</li> <li>Level 2 indoor recreation centres</li> <li>Level 2 Council Community Centres/Early Years Facility/ Neighbourhood Houses</li> <li>Low Order Tennis Facilities</li> <li>Low Order Youth Facilities</li> <li>Maternal &amp; Child Health (within every second level 1 early years facility)</li> <li>Occasional Child Care (as part of every neighbourhood house and leisure centre)</li> <li>Residential Aged Care</li> </ul>	
Level 3 Provision ratios between 30,000 and 60,000 people	<ul> <li>Libraries</li> <li>Aquatic Leisure Centres</li> <li>Community Arts Centres</li> <li>Catholic Secondary Schools</li> <li>Higher Order Active Open Space Reserves</li> <li>Level 3 indoor recreation centres</li> <li>High Order Tennis Facilities</li> <li>Lawn Bowls Facility</li> <li>High Order Dedicated Youth Facilities</li> <li>Level 3 Council Community Centres</li> <li>Level 3 Council and Community Services Health Precincts (DHS Level 2 Community based health precincts - dedicated outreach health precinct sites)</li> <li>Early Childhood Intervention Service</li> <li>PAG facility</li> <li>Delivered meals facility</li> <li>Level 3 adventure playgrounds</li> <li>Other independent schools</li> </ul>	
Level 4 Provision for the total municipality	<ul> <li>Main Council Civic Centre</li> <li>Level 3 Community-based health precincts – Day hospitals that contain main or outreach services</li> <li>Community Health Centre site (including Mental Health)</li> <li>Synthetic athletics track</li> </ul>	
Level 5 Provision for two or more munici- palities	<ul> <li>Highest Order Performance Arts Facility</li> <li>Universities/TAFEs</li> <li>Level 4 Community-based health precincts - Hospitals with community-based health services</li> <li>Regional Parks</li> </ul>	



## **APPENDIX B - EXISTING/PLANNED COMMUNITY INFRASTRUCTURE**

Table 12 Donnybrook/Woodstock Community infrastrucutrexii

Total population: 46,700 Total number of dwellings: 16,700

Centre	Facilities	Components	Land Area
	Branch Library	• Library	2.0 ha
		Life-long learning space	
		Community and performing arts	
		Small community meeting space	
		Large community space	
		Consulting rooms	
		Breastfeeding facilities	
	Family Resource Centre	Office admin and waiting area	Co-located on Library land
		Activity space	
LTC 1: Koukoura Drive		• Public amenities	
Drive		Two room PAG facility	
		<ul> <li>Youth facility including flexible meeting and activity space and stor age, district level admin/office space</li> </ul>	
	Gov't School (yr. 7-12)	N/A	8.4ha
	Non Gov't school (yr. 7-12)	N/A	9.0ha
	Sporting Reserves	<ul> <li>Outdoor netball site with pavilion including fencing, lighting, earth- works and surfacing x8</li> </ul>	8.0ha
		<ul> <li>Outdoor tennis site with pavilion including fencing, lighting, earth- works and surfacing x6</li> </ul>	
		Community Garden	
	Indoor sports facility	6 court indoor stadium	Co-located on sports
		• 2 x lawn bowls	reserve



Centre	Facilities	Components	Land Area
LTC 1: Koukoura Drive (cont)	Indoor sports facility (cont)	Shared pavilion for 8 netball courts and 6 tennis courts includes a small meeting space	Co-located on sports reserve
		1 x skate park (regional)	
	MCH	• 2 room MCH	0.8ha
		Program Room	
	Kinder Facilities	Dual-room kinder facility (66 licensed spaces)	
	Dedicated commu- nity meeting space - Medium	Integrated with MCH. Does not include amenities and admin etc.	
	Gov't School (P-6)	N/A	3.5ha
LTC 2: Patterson Drive	Non-Gov't School (P-12)	N/A	7.5ha
	Sporting Reserves	• 2 x AFL/Cricket ovals	
		Community Garden	
		2 x outdoor netball courts	8.0ha
		Dedicated community meeting space (Small)	
		Pavilions including 60m² community meeting space and change rooms	
LTC 3: Lockerbie East	MCH and kindergar- ten facility	• 2 room MCH	
		Program Room	0.0ha
		Dual room kinder facility (66 licensed places)	0.8ha
		<ul> <li>Dedicated community meetings space – Medium (does not include amenities foyer or admin area).</li> </ul>	
	Gov't School (P-6)	N/A	3.5ha



Centre	Facilities	Components	Land Area
LTC 3: Lockerbie East (cont)	Non-Govt. School (P-6)	N/A	2.6ha
	Sporting Reserves	<ul> <li>Pavilion with 4 change rooms and 60m<sup>2</sup> community meeting space</li> </ul>	
		<ul> <li>2 x AFL/Cricket ovals including fencing, lighting, earthworks, irrigation pitch, nets and lighting</li> </ul>	8.0ha
		Community garden	0.0114
		<ul> <li>2 x outdoor netball courts including fencing, lighting, earthworks and surfacing.</li> </ul>	
		• 2 room MCH	
	MCH and kindergar- ten facility	Program Room	0.8ha
		Triple-room kinder facility (99 licenced places)	
		<ul> <li>Dedicated community meetings space – Medium (does not include amenities foyer or admin area).</li> </ul>	
LTC 4: Darebin Creek	Gov't School (P-6)	N/A	3.5ha
	Non-Govt. School (P-6)	N/A	2.6ha
	Sporting Reserves	• 3 x soccer pitches	
		Community Garden	8.0ha
		Pavilion with 6 change rooms and 60m² of community meeting space	
LCC 1: Donnybrook Farmhouse	MCH and kindergar- ten facility	• 2 room MCH	
		• Program Room	0.8ha
		Triple-room kinder facility with 99 licensed places	O.O.IIu
		Dedicated community meetings     space – Small	



Centre	Facilities	Components	Land Area
LCC 1:	MCH and kindergar- ten facility (cont)	Does not include amenities foyer or admin area.	
	Government P-12 School	N/A	10ha
	Sporting Reserves	3 x Soccer including fencing, lighting, earth-works, irrigation pitch, nets and lighting	8.0ha
Donnybrook Farmhouse		<ul> <li>6 x outdoor tennis courts including fencing, lighting, earthworks and surfacing.</li> </ul>	
		Community garden	
		<ul> <li>Pavilion with 6 change rooms and 60m<sup>2</sup> community meeting space</li> </ul>	
LCC 2: Donnybrook Rail- way Station	Potential for private providers	Private Childcare	N/A
LCC 3: Lockerbie Railway Station	Potential for private providers	Private Childcare	N/A
	Temporary MCH to transition to LTC 1	Flexible MCH Program/Activity Room (50m²)	0.2ha
LCC 4: Hayes Hill		Separate lockable MCH office / Ad min workspace (10m²)	
		Medium community meeting space with capacity to be split in half	
	MCH and Kinder facility	• 2 room MCH	
		Program Room	0.8ha
LCC 5: Woodlands		Dual room kinder facility (66 licensed spaces)	
	Govt. Primary School	N/A	3.5ha
	Sporting Reserves	3 x rectangular sports ground	
		• Community Garden	8.0ha
		<ul> <li>Pavilion with 6 change rooms and 120m<sup>2</sup> of integrated community meeting space</li> </ul>	



Centre	Facilities	Components	Land Area
LCC 6: Merristock	MCH and kindergar- ten facility	Flexible MCH program/activity room (50m²)	0.8ha 8.0ha
		<ul> <li>Separate lockable MCH office /admin work-space (10m²) (does not include public toilet or kitchen facilities)</li> </ul>	
		Dual-room kinder facility (66 licensed places)	
		<ul> <li>Dedicated community meetings space – Small (does not include amenities foyer or admin area).</li> </ul>	
	Sporting Reserves	2 x sports grounds (assumes AFL/ Cricket)	
		Community Garden	



**Table 13 Lockerbie Community infrastructure**xviii

Centre	Facilities	Components	Land Area
	Community Facility	• 750m² Multipurpose Centre	0.8ha
	Gov't School (P-6)	N/A	3.5ha
	Non-Gov't School (P-6)	N/A	3.0ha
LCC 1: Northern Centre		• 2 x AFL/Cricket ovals	
	Sporting Re-	• 6 x Tennis Courts	0.5ha
	serves	1 x AFL/Cricket Sports Pavilion	9.5ha
		• 1 x Pavilion for Tennis Courts	
	Community Facility	1500m2 Multipurpose Centre	1.2ha
	Gov't School (P-6)	N/A	3.5ha
LCC 2: Central Centre	Sporting Reserves	• 2 x AFL/Cricket ovals	
		• 6 x Tennis Courts	0.51
		1 x AFL/Cricket Sports Pavilion	9.5ha
		• 1 x Pavilion for Tennis Courts	
	Community Facility	• 750m² Multipurpose Centre	0.8ha
LCC 3: Southern Centre	Gov't School (P-6)	N/A	3.5ha
	Non-Govt. School (P-6)	N/A	3.0ha
	Sporting Reserves	• 3 x soccer pitches	0.51
		• 6 x Tennis Courts	9.5ha



Centre	Facilities	Components	Land Area
LCC 3: Southern Centre (cont)	Sporting Reserves (cont)	1 x AFL/Cricket Sports Pavilion	
		• 1 x Pavilion for Tennis Courts	
Principal Town Centre	Library	• Library	2ha
		Community Centre	Ziiu
	Indoor Recreation Precinct	N/A	2ha
	Public Purpose Land	N/A	1ha
	Gov't School (7-12)	N/A	8.4ha
	Non-Gov't School (7-12)	N/A	7.0ha
	Regional Open Space	Regional Active playing fields	15ha





