

Dear Matthew

Subject: Review of dwelling targets in draft City of Ryde Local Housing Strategy

This letter is in response to your request on 12 November 2020 for additional information to support the ongoing development of City of Ryde's Local Housing Strategy (LHS). The additional information City of Ryde has requested relates to:

- An additional capacity scenario with new assumptions for dual occupancy capacity in the R2 Low Density Residential zone
- Incorporation and analysis of 2019 Department of Planning Industry and Environment (DPIE) population projections
- Consideration of potential impact of the COVID-19 pandemic as it relates to migration patterns and potential policy responses in the LHS.

HillPDA's analysis is provided below.

Background

HillPDA prepared the draft *City of Ryde Local Housing Strategy*, which was provided to City of Ryde in February 2020. The draft LHS responds to the GSC's housing target of 7,600 dwellings between 2016 and 2021 and outlines City of Ryde's approach to housing supply in accordance with the DPIE *Local Housing Strategy Guideline and Template*. At the time of preparation, the 2016 DPIE population projections from DPIE were the most relevant State projections for City of Ryde's population growth during the 2016 to 2036 period. The draft LHS was considered by Council at its 24 March 2020 meeting, where it agreed to place it on public exhibition once COVID-19 related conditions eased.

In response to the draft LHS, Council prepared a planning proposal to increase the minimum lot size and frontage requirements for dual occupancy development. The draft LHS and planning proposal was subsequently placed on public exhibition with the planning proposal from 16 October to 16 November 2020.

DPIE's 2019 projection series, made available in December 2019, have superseded the 2016 projections. The 2019 projections represent the State's assumptions for population growth, as informed by the 2016 Census and government migration policy. Since the onset of the COVID-19 pandemic, determining the validity of the 2019 projections has become a key concern, as the COVID-19 pandemic, has resulted in the effective closure of the international border, a major source of population growth, for an undetermined period. Interstate migration has also been severely impacted as Australian states and territories have responded to the COVID-19 pandemic by closing domestic borders in response to infections.

It is timely for council to consider implications of COVID-19 on housing targets, particularly in light of the 2019 DPIE population projections and restrictions to interstate and international migration, both of which impact population growth in City of Ryde.

1.0 DUAL OCCUPANCY

HillPDA provided Council with an analysis of the potential capacity for dual occupancy development in the R2 Low Density Residential zone as part of the draft LHS. Supplementary information was provided on 30 June 2020 that considered the impact of excluding heritage lots, as well as an estimate of capacity associated with permitting dual occupancy development on lots with a 15 m frontage and 750 m² minimum lot size. This information was sought to inform a planning proposal to change the lot size and street frontage requirements for dual occupancy development.

The potential impacts of Council's planning proposal were further examined in the context of changing the format of information to meet DPIE requirements on 13 August 2020. As part of this analysis, HillPDA predicted that Council's preferred controls would allow dual occupancy development on around 3,551 dual occupancy dwellings. This analysis did not consider feasibility or design restrictions

As per your request, HillPDA has considered an additional scenario of a 15 m frontage with a minimum lot size of 600 and 650 sqm. This analysis has identified **9,461 lots (600 sqm)** and **7,289 lots (650 sqm)** that meet this requirement, respectively. This excludes heritage lots, consistent with the analysis provided in HillPDA's previous letters.

2.0 POPULATION PROJECTIONS

The draft LHS primarily discusses future population growth in the context of DPIE’s 2016 population projection. This section expands that analysis to include DPIE’s 2019 population projection and compares the two sets of projections.

2.1 Recent population increase

The City of Ryde estimated residential population in 2016 (which is separate from the 2016 Census’s place of usual residence) was 121,270 people, living in 46,239 dwellings (total private and non-private dwellings), with an average household size of 2.61 people.¹ Since that time, the estimated resident population rose to 131,271 people (June 30 2019), an increase of approximately 10,000 people over three years. This represents an increase of 8.2 per cent over approximately three years (2.7 per cent per annum).

2.2 NSW and regional context

Population projections have been prepared by DPIE based on the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard 2019 approximation of LGAs in Australia as of 30 June 2019. This follows a previous 2016 release, which forms the basis of the Greater Sydney Commission’s *North District Plan* (Greater Sydney Commission, 2018) 0-5 year estimates. Both the 2016 and 2019 releases are provided below, allowing a comparison of the two releases.

Projections are extrapolated into the future based on historical trends and attributing State-wide growth down to the local level, taking into consideration planned urban growth and historic trends in migration, household size and other demographic factors known at the time of preparation. Table 1 and Table 2 identifies the projected 2016 and 2036 populations and dwellings for NSW, Greater Sydney and the City of Ryde.

Table 1: Projected population and dwellings to 2036 (2019 release)

	2016		2036	
	Projected population	Projected dwellings	Projected population	Projected dwellings
New South Wales	7,732,858	3,200,831	10,077,964	4,286,735
Greater Sydney	4,688,255	1,794,231	6,661,720	2,624,925
City of Ryde	121,270	48,007	205,275	86,604

Source: NSW DPIE, 2019

Table 2: Projected population and dwellings to 2036 (2016 release)

	2016		2036	
	Projected population	Projected dwellings	Projected population	Projected dwellings
New South Wales	7,748,000	3,284,700	9,925,550	4,269,650
Greater Sydney	4,681,950	1,844,750	6,421,850	2,569,900
City of Ryde	119,950	49,000	171,650	71,000

Source: NSW DPIE, 2016

¹ idcommunity, City of Ryde Community Profile (November 2020)

2.3 Overall population projections

Table 3 and Table 4 describes the projected population, dwellings and household sizes in five-year increments for the City of Ryde.

Table 3: Projected population and dwellings in Ryde to 2036 (2019 release)

Year	2016	2021	2026	2031	2036	Total change
Population	121,270	148,184	171,394	189,485	205,275	84,005
Household size	2.65	2.63	2.62	2.61	2.58	-0.07
Households	44,742	55,001	63,989	71,035	77,497	32,755
Dwellings	48,007	59,015	68,659	76,219	83,152	35,145
Change	2016-2021	2021-26	2026-31	2031-36	Total	
Total population change	26,914	23,210	18,091	15,790	84,005	
Compound annual population growth rate (%)	4.1%	3.0%	2.0%	1.6%	2.7%	
Total household change	10,259	8,988	7,046	6,462	32,755	
Compound annual household growth (%)	4.2%	3.1%	2.1%	1.8%	2.8%	

Source: NSW DPIE, 2019

According to the most recent population projections, the City of Ryde population is anticipated to increase by 84,005 people, an increase of 69.3 per cent by 2036, or 2.7 per cent increase per annum. During this time the average household size is expected to decrease from 2.65 persons per household to 2.58, which is generally consistent with the historical trend. The effect of this is that an additional 35,145 dwellings are expected to be required during the period, an increase of 73.2 per cent over the 2016 dwellings.

Table 4: Projected population, household and dwellings in Ryde to 2036 (2016 release)

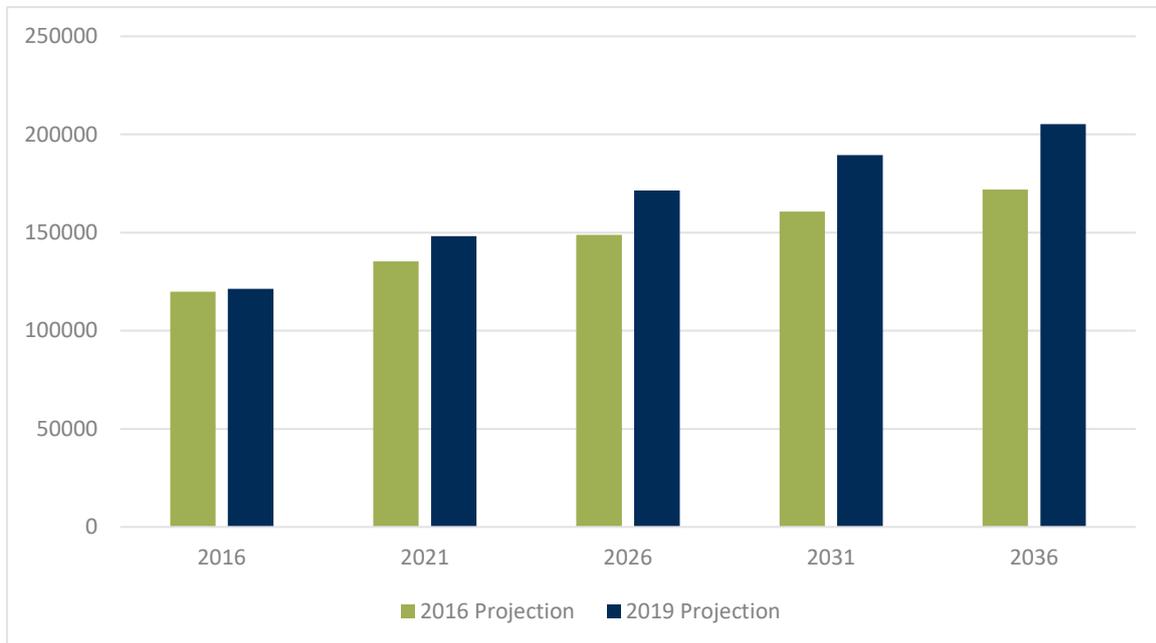
Year	2016	2021	2026	2031	2036	Total change
Population	119,950	135,250	148,750	160,750	171,650	51,700
Household size	2.54	2.54	2.54	2.53	2.50	-0.04
Households	46,050	51,900	57,200	62,000	66,700	20,650
Dwellings	49,000	55,250	60,900	66,000	71,000	22,000
Change	2016-2021	2021-26	2026-31	2031-36	Total	
Total population change	15,300	13,500	12,000	10,900	51,700	
Compound annual population growth rate (%)	2.4%	1.9%	1.6%	1.3%	1.8%	
Total household change	5,850	5,300	4,800	4,700	20,650	
Compound annual household growth (%)	2.4%	2.0%	1.6%	1.5%	1.9%	

Source: NSW DPIE, 2016

In comparison, the 2016 projections used in the Draft LHS indicate that between 2016 and 2036, the City of Ryde population is anticipated to increase by 51,700 people, an increase of 43.1 per cent, or 1.8 per cent increase per annum. During this time, the average household size is expected to decrease from 2.54 persons per household to 2.50. The effect of this is that around 22,000 dwellings are expected to be required during the period, an increase of 44.9 per cent.

A comparison of the 2016 and 2019 population projections is shown in Figure 1.

Figure 1: Comparison of 2016 and 2019 population projections



The 2019 population projections predict significant increase in population, compared to the 2016 projections. However, as noted above, these projections are based on historical trends and interpretation of government policy. Central to these assumptions are assumptions that there would be significant net positive overseas immigration across NSW and Greater Sydney, with a portion of that attributed to City of Ryde.

These assumptions are discussed in the next section, along with a consideration of what has occurred since 2016, pre and post-COVID-19 changes.

3.0 POPULATION CHANGE

In the context of overall population, migration is defined as a component alongside natural population change (net births and deaths). Net migration is the balance between growth and attrition in the number of residents. At an LGA level, overall net migration is driven by domestic migration, such as intrastate migration (movement within NSW), interstate migration (movement outside NSW, but within Australia), and international migration (overseas). As discussed in the section above, assumptions about trends in net migration underpin the 2016 and 2019 DPIE population projections. In turn, the population projections inform the demand for dwellings and dwelling targets.

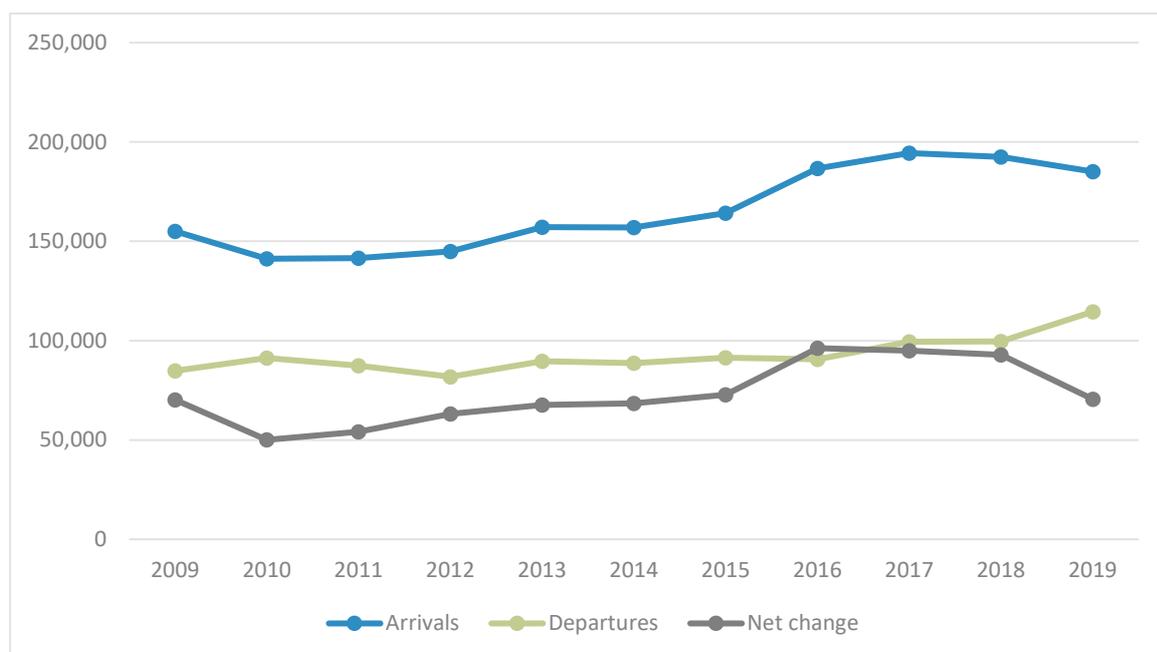
The 2019 population projections are based on a combination of government policy regarding overseas migration and historic attribution to the City of Ryde, as well as trends in domestic migration. This section examines how trends have changed since the 2016 Census, how that relates to the 2019 population projections and how the COVID-19 pandemic could further influence how the City of Ryde population changes into the future. This analysis provides context for potential amendments to the draft LHS reflecting the changes.

3.1 Overview of historical trends

3.1.1 International migration

Between the 2010 and 2016 calendar years, overseas immigration has resulted in year over year net increases in population for NSW, as shown in Figure 2. The net additional population in 2010 was 50,000 people, with a peak of 96,000 people in 2016. That figure reduced to approximately 93,000 in 2018, with a larger reduction to approximately 70,500 in 2019. The 2019 reduction was a result in increased overseas departures and reduced overseas arrivals.

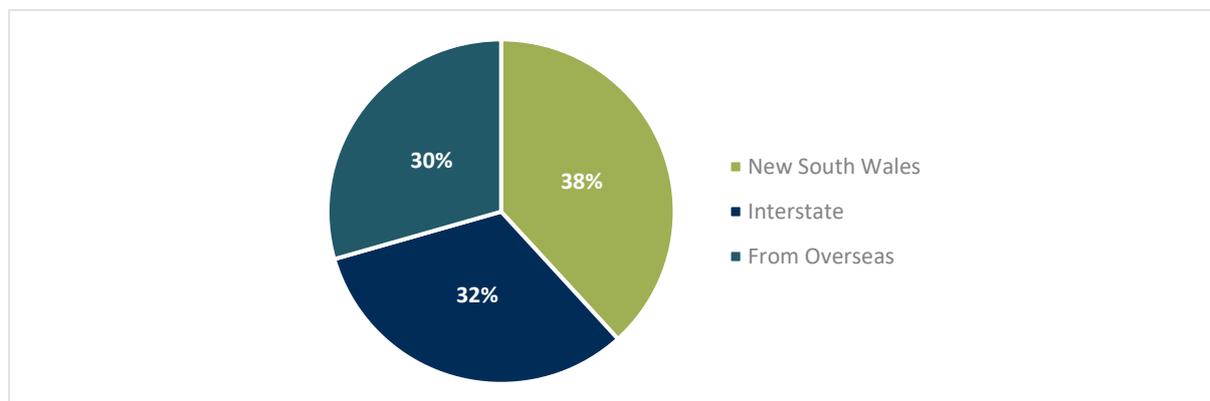
Figure 2: NSW net overseas migration (2009 to 2019)



Source: Net overseas migration, Arrivals and Departures, State/territory, Major groupings and visa – Calendar years 2004 to 2019 (Australian Bureau of statistics, June 2020)

Looking to City of Ryde, international migration accounted for over 29 per cent of inward migration over the five years to the 2016 Census, shown below in Figure 3.

Figure 3: Sources of inward migration to the City of Ryde 2011-2016



Source: ABS 2016, compiled by profile.id

Forecast .id has estimated that the net figure for overseas migration during the five year period to 2016 Census was 10,900 people. As per Figure 2, NSW had a net increase of 326,080 during the 2011 to 2015 calendar years. Assuming City of Ryde’s 10,900 person net increase between the 2011 and 2016 is comparable, this would represent a share of approximately 3.3 per cent.

Net overseas migration data based on arrivals and departures is collected from the Department of Home Affairs and published by the ABS. This is presented over the financial year, as opposed to the calendar year figures in Figure 2. During the 2018/19 financial year:

- NSW had a net increase of 86,200 people
- Greater Sydney had an increase of 73,919 people
- City of Ryde had an increase of 2,735 people.²

This includes all sources of migration, including temporary students, visitors and workers, as well as permanent residents and citizens.

City of Ryde accounts for approximately 3.2 per cent of the NSW net overseas migration in the 2018/19 financial year. This represents a roughly stable trend in proportion of net migration from the 2011 to 2016 period.

3.1.2 Domestic migration

Domestic migration is recorded as interstate migration or intrastate migration. Interstate migration accounted for approximately 20 per cent of overall migration in City of Ryde over the five years to 2016. However, when this figure is considered alongside interstate departures the net figure is a population loss of 440, or approximately 88 people per year. Interstate departures from the City of Ryde strongly favoured Queensland and Victoria, representing 36.7 per cent and 30.2 percent of all interstate departures, respectively. The size of residents moving to Queensland is particularly pronounced amongst older cohorts.

A comparison of the top ten LGAs where City of Ryde had a positive and negative net migration is shown in Table 5 and Table 6, respectively.

² Regional Population Growth, Australia (ABS cat. no. 3218.0)

Table 5: Top ten LGAs where City of Ryde had a positive net migration (2016 Census)

LGA	Incoming	Outgoing	Net change
Canada Bay (A)	1,502	1,147	+355
Willoughby (C)	980	637	+343
Canterbury-Bankstown (A)	697	394	+303
Burwood (A)	413	146	+267
Georges River (A)	438	178	+260
Cumberland (A)	864	617	+247
Lane Cove (A)	689	461	+228
Strathfield (A)	399	194	+205
Inner West (A)	948	762	+186
Sydney (C)	957	775	+182

Source: Profile .id (November 2020)

Migration from other NSW LGAs to the City of Ryde most strongly comes from the south, with four of the top five LGAs ranked on net migration being located within the Inner West and Inner South west of Sydney.

Table 6: Top ten LGAs where City of Ryde had negative net migration (2016 Census)

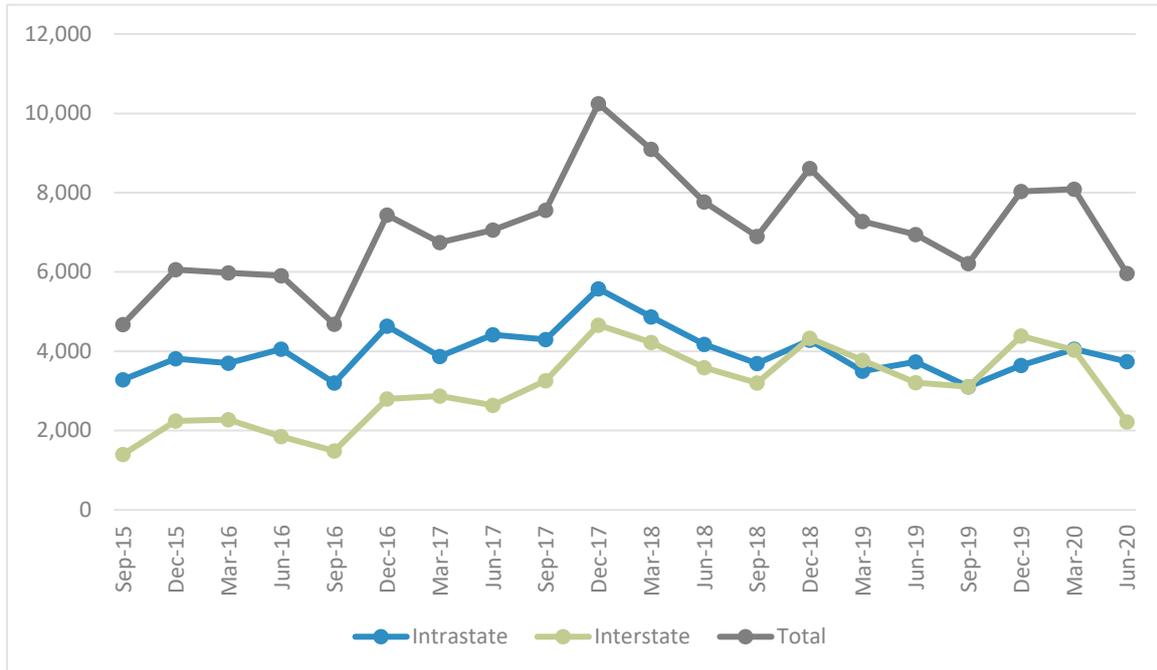
LGA	Incoming	Outgoing	Net change
Parramatta (C)	3,343	4,984	-1,641
Hornsby (A)	904	1,577	-673
Blacktown (C)	567	1,171	-604
Ku-ring-gai (A)	776	1,346	-570
The Hills Shire (A)	565	1,062	-497
Central Coast (C) (NSW)	321	773	-452
Northern Beaches (A)	477	735	-258
Penrith (C)	179	302	-123
Gold Coast (C)	118	206	-88
Mid-Coast (A)	50	136	-86

Source: Profile .id (November 2020)

The LGA with most significant negative net migration is Parramatta, with more than twice the net negative change of the next highest negative council, Hornsby. Almost a third of this negative net change is in the 25-34 and 35 to 44 year age brackets, suggesting younger students and professionals moving to larger urban centres to work or study. Amongst older residents, net losses were to LGAs further east or in regional coastal areas, suggesting migration out of the area for retirement.

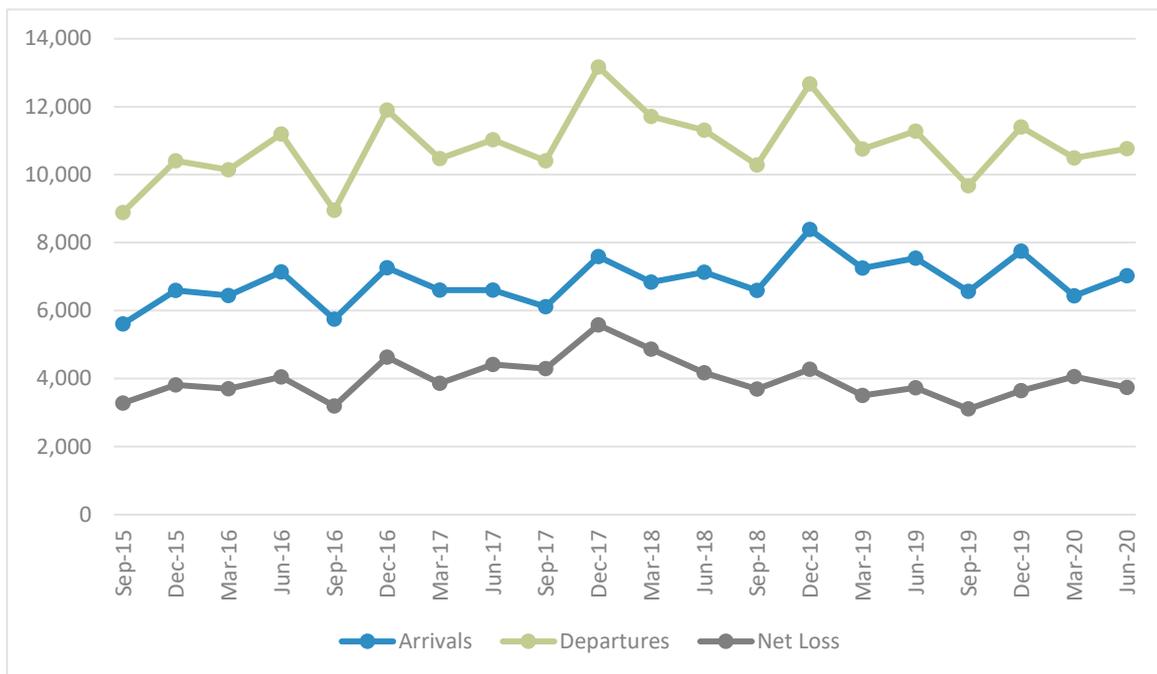
Looking to Greater Sydney, domestic migration has also resulted in negative intra-state and interstate migration, as shown in Figure 4 and Figure 5. Since late 2015, domestic migration has resulted in a net loss of between 6,000 and 10,000 people per annum, peaking in December 2017. There appears to be a cyclical pattern in population loss, with peaks during the December quarter. The recent March quarter had an uncharacteristic maintenance of the December 2019 peak, followed by a strong reduction in net loss in the June quarter. This is largely due to a sharp decrease in net negative interstate migration and a softening in net negative intra-state migration (Figure 6).

Figure 4: Greater Sydney net loss in population via domestic migration (Sept 2015 to June 2020)



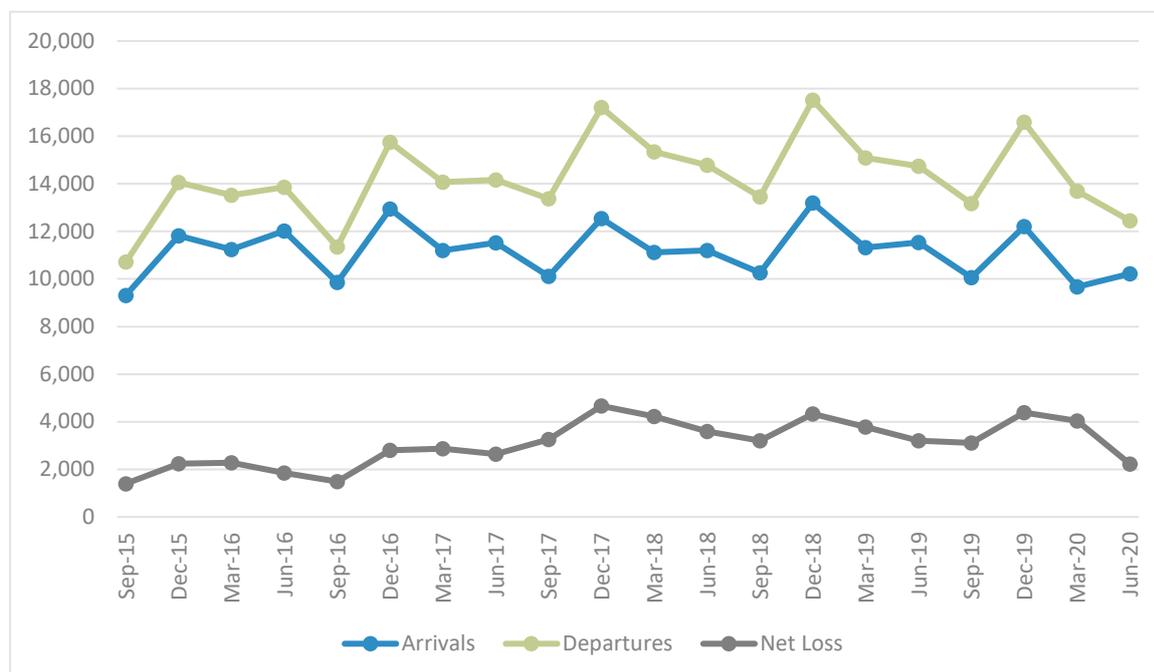
Source: Regional internal migration estimates, provisional, June 2020, Australian Bureau of Statistics, 2 November 2020

Figure 5: Greater Sydney change in population via intrastate migration (Sept 2015 to June 2020)



Source: Regional internal migration estimates, provisional, June 2020, Australian Bureau of Statistics, 2 November 2020

Figure 6: Greater Sydney change in population via intrastate migration (Sept 2015 to June 2020)



Source: Regional internal migration estimates, provisional, June 2020, Australian Bureau of Statistics, 2 November 2020

3.1.3 Natural increase

Natural population increase refers to population change arising from births and deaths. Trends in natural increase can be shown by direct comparisons in numbers of births and deaths, or by examining fertility rates and standardised death rates. A comparison of numbers is provided in Table 7, with changes in fertility and standardised death rates over time shown in Figure 7 and Figure 8, respectively.

Table 7: Birth and death rates in City of Ryde

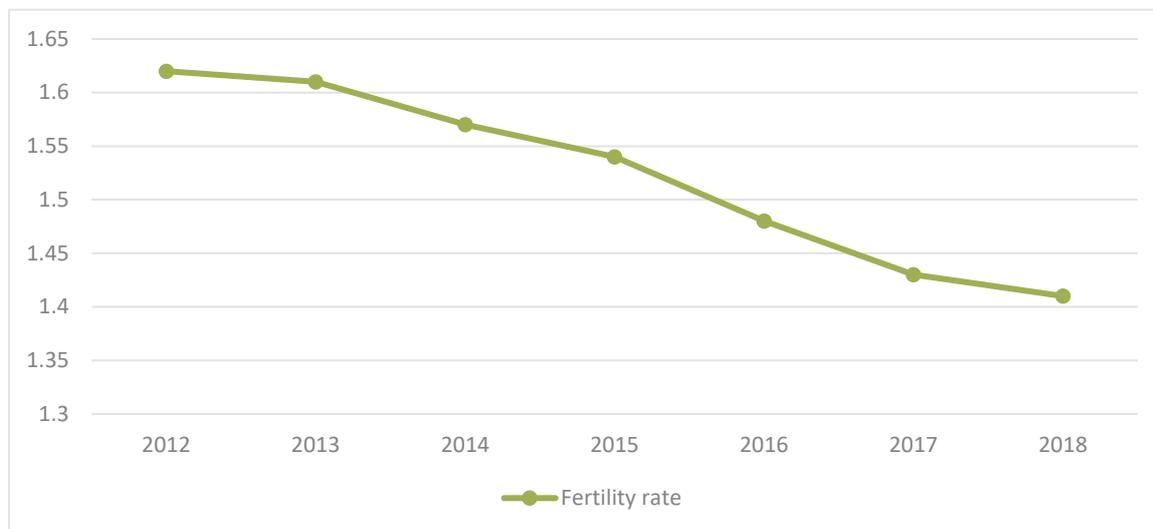
	2012	2013	2014	2015	2016	2017	2018
Deaths	709	677	698	738	706	715	696
Births	1,481	1,588	1,433	1,526	1,588	1,447	1,627
Natural increase	772	911	735	788	882	732	931

As shown in the table, birth and death rates have remained relatively stable from 2012 to 2018, with a consistent positive natural increase each year of between 732 and 931 people per year.

The total fertility rate required for replacement is currently considered to be around 2.1 babies per woman to replace herself and her partner. As shown in Figure 7, the fertility rate in City of Ryde has decreased to approximately 1.4. The standardised death rate represents deaths per 1,000 standard population, using age distribution to standardise results. As shown in Figure 8, the standardised death rate in City of Ryde has decreased from 4.8 to 4.3 from 2012 to 2019, representing a fewer number of deaths per year, based on the overall population.

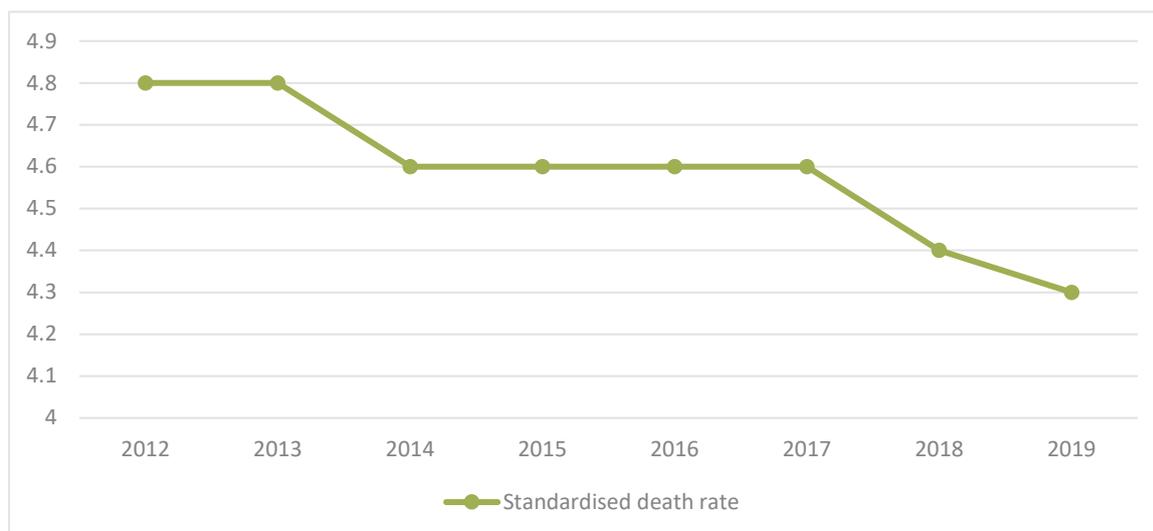
Combined, this means that there are fewer births and fewer deaths per year. The relatively steady rate shown in Table 7 is likely reflective of additional migrants increasing the base population that these rates are applied to.

Figure 7: City of Ryde fertility rate (2012 to 2018)



Source: Births, Australia, 2018 (Australian Bureau of Stations, December 2019)

Figure 8: City of Ryde standardised death rate (2012 to 2018)



Source: Deaths, Australia, 2019 (Australian Bureau of Stations, September 2020)

3.1.4 Implications

An analysis of historical trends of the components of population growth in City of Ryde indicates that:

- Overseas migration is the key source of population increase for the City of Ryde, making up approximately a third of all inbound migration and a significant proportion of overall net migration
- City of Ryde’s share of NSW net overseas migration appears to be somewhere around 3.2 and 3.3 per cent, based on multiple comparisons
- Net intrastate and interstate migration were both negative contributors to the City of Ryde population for the five years to 2016, notwithstanding significant volumes of inward migration
- Intrastate migration away from the City of Ryde was predominantly focussed within the Greater Sydney region, with stronger migration amongst younger professionals to more urbanised centres, with older residents moving to coastal areas both within Sydney, the Northern NSW and Queensland.
- Natural increase remains a significant source of population for City of Ryde.

These trends provide a basis of considering the potential for future population growth and housing need.

3.2 Projected population change

Understanding the potential impact of the COVID-19 pandemic requires an analysis of the best known assumptions regarding the drivers of population pre-COVID-19. The 2019 DPIE projections identify how changes in the NSW and Greater Sydney would change due to:

- Natural growth (births and deaths)
- Intra-state movement (within NSW)
- Interstate movement (between NSW and other states)
- Overseas migration at the NSW, Greater Sydney and Regional NSW levels.

Table 8 and Table 9 show projected changes to NSW and Greater Sydney populations, as projected by DPIE.

Table 8: NSW projected population components (2019 projections)

	2016-21	2021-26	2026-31	2031-36	2016-2036
Population at Start of Period	7,732,858	8,414,978	9,011,010	9,560,567	7,732,858
Births	524,156	566,740	584,279	588,925	2,264,100
Deaths	-266,136	-284,808	-306,222	-334,127	-1,191,293
Natural increase	258,020	281,932	278,057	254,798	1,072,807
Net interstate migration	-101,000	-85,000	-85,000	-85,000	-356,000
Overseas migration	525,100	399,100	356,500	347,600	1,628,300
Net Migration (all sources)	424,100	314,100	271,500	262,600	1,272,300
Net Change	682,120	596,032	549,557	517,398	2,345,107
Population at End of Period	8,414,978	9,011,010	9,560,567	10,077,964	10,077,964

Source: DPIE, 2019

Table 9: Greater Sydney projected population components (2019 projections)

	2016-21	2021-26	2026-31	2031-36	2016-2036
Population at Start of Period	4,688,255	5,252,611	5,746,821	6,211,970	4,688,255
Births	350,076	387,129	404,829	412,330	1,554,364
Deaths	-124,425	-135,741	-148,052	-164,174	-572,392
Natural increase	225,651	251,388	256,777	248,156	981,972
Net intra-state migration	-63,352	-56,191	-53,410	-52,410	-225,363
Net interstate migration	-56,858	-49,784	-49,784	-49,784	-206,210
Inter overseas migration	458,915	348,797	311,566	303,788	1,423,066
Net Migration (all sources)	338,705	242,822	208,372	201,594	991,493
Net Change	564,356	494,210	465,149	449,750	1,973,465
Population at End of Period	5,252,611	5,746,821	6,211,970	6,661,720	6,661,720

Source: DPIE, 2019

As shown in the tables, interstate migration is projected to result in net negative migration for both Greater Sydney and NSW as a whole, with intra-state migration also resulting in net negative migration for Greater Sydney. Overseas migration is projected to contribute to significant growth, resulting in a net positive migration for Greater Sydney and NSW. Notably, overseas migration decreases in future years, resulting in net migration falling behind natural increase as the primary component of population growth by 2021, although overseas migration is projected to continue to outpace natural increase.

For City of Ryde, migration projections (intra-state, interstate and overseas) are combined into a single ‘net migration (all sources)’ category for LGA level projections. These are shown in Table 10.

Table 10: City of Ryde population components (2019 projections)

	2016-21	2021-26	2026-31	2031-36	2016-2036
Population at Start of Period	121,270	148,184	171,394	189,485	121,270
Births	8,809	11,546	12,976	13,133	46,464
Deaths	-3,569	-3,869	-4,214	-4,684	-16,336
Natural increase	5,240	7,677	8,762	8,449	30,128
Net Migration (all sources)	21,674	15,533	9,329	7,341	53,877
Net Change	26,914	23,210	18,091	15,790	84,005
Population at End of Period	148,184	171,394	189,485	205,275	205,275

As DPIE does not disclose assumptions for migration sources upon individual LGA growth rates, it is difficult to interpret the impact of projected overseas migration over time. It is noted that the net migration compared to Greater Sydney declines from 6.4 per cent to 3.6 per cent from 2016/21 to 2031/36. Adjusting domestic net migration rates in City of Ryde over time, similar to change over time in Greater Sydney, does not account for the change. This suggests that other trends are applied, or assumptions are made regarding the capacity for individual LGA to accommodate sustained population growth.

3.2.1 Implications

An analysis of the 2019 DPIE population projections indicates that, at the time they were prepared, DPIE anticipated:

- Interstate and Intra-state migration will continue to be a net negative for Greater Sydney into the future, with residents moving elsewhere in the State and to other places in Australia
- The level of net-negative migration is expected to reduce, particularly net intra-state migration
- Overseas migration is anticipated to be a net positive into the future, though reducing in magnitude
- The net overseas migration during the 2016 to 2021 period does not align with actual net migration during that time, as discussed in Section 3.1.1.
- While migration is the major population driver for City of Ryde in 2016 to 2026, natural increase is the major driver from 2026 to 2036 as migration drops off.

These projections do not take into account the significant impact of the COVID-19 pandemic on migration.

3.3 COVID-19 Impacts on domestic and international migration

The September 2020 ABS release of *Overseas Arrivals and Departures* noted that in NSW there were 450 long-term visitor arrivals in September, which represented a 97.5 per cent decline on the corresponding month of the previous year.³ This represents an almost total halt to overseas migration which, as noted in Section 3.1, contributes almost a third of all inward migration in the City of Ryde.

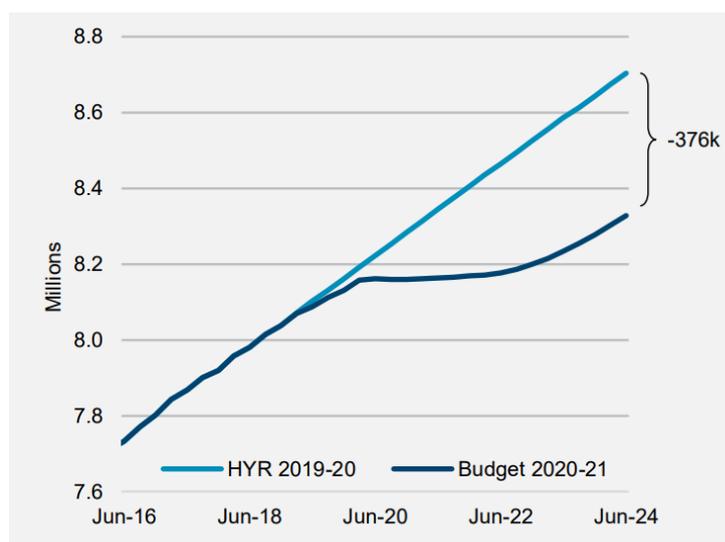
The 2020 NSW Budget has modelled the longer term impacts of the changes in migration patterns resulting from border changes associated with the COVID-19 Pandemic, noting that:

³ ABS (2020), “Overseas Arrivals and departures, Australia” <<https://www.abs.gov.au/statistics/industry/tourism-and-transport/overseas-arrivals-and-departures-australia/latest-release#arrivals-state-and-territory>>

“Net international migration to NSW is now expected to be negative in both 2020-21 and 2021-22, while the fertility rate is also expected to be lower. NSW’s population in June 2024 has been revised down by 376,000 since the 2019-20 Half-Yearly Review”⁴

The graphs in the budget also appear to reflect that migration rates will slowly increase after 2021-22 before reaching rate similar to pre-COVID-19 rates by 2024.

Figure 9: NSW Budget population revisions



Source: Budget Statement 2020-21 (NSW Government, 2020)

Population projections prepared by .id are based on similar assumptions. .id projects that:

- Overseas migration is minimal to June 2021
- Net overseas migration to Australia increases to a maximum of 200,000 per annum by June 2024 to 2031 (down from 225,000 for pre-COVID-19 assumptions)
- Natural increase is stable
- Net interstate migration is minimal in the short term (undefined, but assumed to be to June 2021)
- Net intrastate migration will remain stable.⁵

The forecast .id projections suggests that there could be negligible net overseas migration contribution to population growth from 2020 to June 2021 to a steady, but lower than previously assumed rate, by June 2024. These high level assumptions regarding interstate and intra-state migration patterns are supported by early information regarding the first half of 2020, as discussed in Section 3.1.2.

3.3.1 COVID-19 impact projection assumptions

HillPDA has projected population growth scenarios based on the following assumptions:

- Published estimated resident populations, available to June 2019, reflect the actual City of Ryde population at that time
- Time periods for application of adjusted net intra-state, interstate and overseas migration are classified into short, medium and long term to reflect the stages of immigration impacts and recovery:
 - Short term: 2019/20 to 2021/22 (with impacts attributed to April to June 2020)
 - Medium term: 2022/23 to 2023/24
 - Long term: 2024/25 to 2035/36

⁴ NSW Government (2020, s. 2-12), Budget Statement 2020-21

⁵ <https://id-the-population-experts.foleon.com/the-local-impacts-of-covid-19/covid-19-the-local-impact/forecast-australia-2031> (Accessed 18 November 2020)

- Slow, medium and fast recovery scenarios have been established, reflecting different rates of recovery during each time period

The following assumptions have been made regarding the components of population growth and how they may change over time.

- Natural increase rates (proportion increase of existing population) are the same as 2019 DPIE projections, reflecting best known assumptions regarding future birth and death rates
- Overseas migration:
 - Net Overseas migration for 2019/20 to 2020/21 is based on reported net migration of the 2019 calendar year
 - Net Overseas migration from 2021/2022 to 2035/36 is based on DPIE 2019 projections for NSW as reflections of government immigration policy
 - Ryde is assumed to take on 3.3 per cent of NSW net overseas migration
 - Short term net overseas migration is very low, reflecting current policy restricting overseas migration to current citizens and permanent residents
 - Long term net overseas migration is below 100 per cent, reflecting forecast .id assumptions regarding softening long term immigration.
- Interstate and intra-state are based on the average yearly net migration change between the 2011 and 2016 Census, as reported by profile .id
 - Short term interstate migration is between 10 and 50 per cent, reflecting potential policy changes regarding border closures and other potential reduced opportunities for migration
 - Intra-state migration rates are relatively stable, reflecting relative ease of movement
- Household size and implied dwelling requirements are based on inputs from 2019 DPIE projection as a reflection of official interpretation of 2016 Census trends.

Recovery assumptions are outlined in Table 11. Percentages in the table are applied to the DPIE 2019 projection’s net migration during the time period, as outlined above. As an example, the 2021/22 financial year is within the ‘short term.’ DPIE 2019 projections indicate the net overseas migration during this period would be about +2,300 per annum. Depending on the scenario, the projection would expect a net overseas migration of between 23 and 69 people during the financial year, representing one to three per cent of the DPIE 2019 net overseas migration projection.

Table 11: Recovery assumptions

Scenario	Overseas net migration			Intra-state net migration			Interstate net migration		
	Short	Medium	Long	Short	Medium	Long	Short	Medium	Long
Slow	1%	15%	85%	75%	80%	90%	10%	30%	90%
Med	2%	20%	90%	80%	90%	100%	25%	50%	100%
Fast	3%	25%	95%	90%	95%	100%	50%	75%	100%

3.3.2 COVID-19 impact projections

The DPIE 2016 population projections, as they relate to City of Ryde are shown in Table 12. These projections form a basis for the draft LHS and anticipated dwelling demand from 2016 to 2036. The table is provided for context and comparison against Table 13, Table 14 and Table 15, which are the outcomes of the slow, medium and fast COVID-19 recovery scenarios.

Table 12: Projected population, household and dwellings in Ryde to 2036 (2016 release)

Year	2016	2021	2026	2031	2036	Total change
Population	119,950	135,250	148,750	160,750	171,650	51,700
Household size	2.54	2.54	2.54	2.53	2.50	-0.04
Households	46,050	51,900	57,200	62,000	66,700	20,650
Dwellings	49,000	55,250	60,900	66,000	71,000	22,000
Change	2016-2021	2021-26	2026-31	2031-36	Total	
Total population change	15,300	13,500	12,000	10,900	51,700	
Compound annual growth (%)	2.4%	1.9%	1.6%	1.3%	1.8%	
Total household change	5,850	5,300	4,800	4,700	20,650	
Total dwelling change	6,250	5,650	5,100	5,000	22,000	
Compound annual growth (%)	2.4%	2.0%	1.6%	1.5%	1.9%	

Source: NSW DPIE, 2016

The slow recovery in Table 13 assumes that short term net overseas migration will remain negligible until mid-2021, with net interstate migration also remaining low. Between the 2021/22 and 2023/24 financial years, net overseas migration would pick up to around 15 per cent of previous assumptions, representing a delayed international recovery. In the long term, net overseas migration would only return to 85 per cent of original projections, with net domestic migration only returning to 90 per cent.

Table 13: Modelled population change in Ryde to 2036 (Slow recovery)

Year	2016	2021	2026	2031	2036	Total change
Population	121,270	134,602	144,578	158,916	172,683	51,413
Household size	2.65	2.63	2.62	2.61	2.58	-0.07
Households	45,762	51,180	55,183	61,595	66,931	21,169
Dwellings	49,102	54,914	59,209	66,090	71,815	22,714
Change	2016-2021	2021-26	2026-31	2031-36	Total	
Total population change	13,332	9,976	14,337	13,767	51,413	
Compound annual growth (%)	2.1%	1.4%	1.9%	1.7%	1.8%	
Total household change	5,417	4,003	6,413	5,336	21,169	
Total dwelling change	5,813	4,295	6,881	5,725	22,714	
Compound annual growth (%)	2.3%	1.5%	2.2%	1.7%	1.9%	

Source: NSW DPIE, 2019, Australian Bureau of Statistics, HillPDA

The medium recovery scenario in Table 14 also assumes that short term net overseas migration will remain negligible until mid-2021, though slightly higher than the slow scenario. Net interstate migration would return to about a quarter of original projections in the short term, representing continued success in containing outbreaks and open borders. Between the 2021/22 and 2023/24 financial years, net overseas migration would pick up to around 20 per cent of previous assumptions, representing a staged opening of international borders. In the long term, net overseas migration would return to 90 per cent of original projections, with net domestic migration returning to 100 per cent.

Table 14: Modelled population change in Ryde to 2036 (Medium recovery)

Year	2016	2021	2026	2031	2036	Total change
Population	121,270	134,594	144,821	159,460	173,526	52,256
Household size	2.65	2.63	2.62	2.61	2.58	-0.07
Households	45,762	51,176	55,275	61,806	67,258	21,496
Dwellings	49,102	54,911	59,309	66,316	72,166	23,065
Change	2016-2021	2021-26	2026-31	2031-36	Total	
Total population change	13,324	10,228	14,638	14,066	52,256	
Compound annual growth (%)	2.1%	1.5%	1.9%	1.7%	1.8%	
Total household change	5,414	4,099	6,531	5,452	21,496	
Total dwelling change	5,809	4,398	7,007	5,850	23,065	
Compound annual growth (%)	2.3%	1.6%	2.3%	1.7%	1.9%	

Source: NSW DPIE, 2019, Australian Bureau of Statistics, HillPDA

The fast recovery scenario in Table 15 assumes a number of domestic and international successes in reversing the effects of the COVID-19 pandemic. As with previous scenarios short term net overseas migration will remain negligible until mid-2021. Net interstate migration would return to about a half of original projections in the short term, representing open borders and improved optimism in job seekers and employers that would encourage migration. Between the 2021/22 and 2023/24 financial years, net overseas migration would pick up to around 25 per cent of previous assumptions, representing a strong international economic response to vaccine adoption. In the long term, net overseas migration would return to 95 per cent of original projections as it would still be likely that there would be some softening in overseas migration, with net domestic migration only returning to 100 per cent.

Table 15: Modelled population change in Ryde to 2036 (Fast recovery)

Year	2016	2021	2026	2031	2036	Total change
Population	121,270	134,557	145,129	160,308	174,923	53,653
Household size	2.65	2.63	2.62	2.61	2.58	-0.07
Households	45,762	51,163	55,393	62,135	67,800	22,038
Dwellings	49,102	54,896	59,435	66,669	72,747	23,646
Change	2016-2021	2021-26	2026-31	2031-36	Total	
Total population change	13,287	10,572	15,179	14,615	53,653	
Compound annual growth (%)	2.1%	1.5%	2.0%	1.8%	1.8%	
Total household change	5,400	4,230	6,742	5,665	22,038	
Total dwelling change	5,794	4,539	7,234	6,078	23,646	
Compound annual growth (%)	2.3%	1.6%	2.3%	1.8%	2.0%	

Source: NSW DPIE, 2019, Australian Bureau of Statistics, HillPDA

The dwelling targets in the draft LHS are shown in Table 16 and compared against the implied dwelling demand projected in the slow, medium and fast recovery scenarios above.

Table 16: Comparison of draft LHS dwelling targets and scenarios

Scenario	2016-21	2021-26	First 10 years	2026-31	2031-36	Second 10 years	Total
Draft LHS	7,600	4,400	12,000	4,400 to 5,100	3,848 to 5,500	8,248 to 10,600	20,000 to 22,000
Slow recovery	5,813	4,295	10,108	6,881	5,725	12,606	22,714
Medium recovery	5,809	4,398	10,207	7,007	5,850	12,857	23,065
Fast recovery	5,794	4,539	10,333	7,234	6,078	13,312	23,646

Source: NSW DPIE, 2019, Australian Bureau of Statistics, HillPDA

As shown in the Table 16, the revised scenarios show a drop off in dwelling demand in the first ten year period, with an increase in dwelling demand for the second ten year period. However, the overall targets are similar.

The drop off in demand during the 2016/17 to 2020/21 financial years is largely associated with the 2019/20 and 2020/21 financial years, representative of the Australian Government’s decision to close the borders to non-citizens/non-permanent residents in late March 2020. As per Treasury NSW and forecast .id, a return to more normal levels of immigration is expected by 2024. The drop-off in overseas migration is partially offset by a decrease in interstate and intra-state negative net migration, reflecting that people would choose to remain in their current homes, rather than move out of Ryde.

The overall dwelling demand during the 20 year period is modelled to increase beyond the draft LHS targets. This could be for the following reasons:

- Housing vacancies in 2016 were higher than 2011. This is reflected in an increased number of dwellings beyond households, as per the 2019 DPIE projections
- An increased initial population in 2016, which results in additional population associated with more births
- Standard attribution of overseas migration to City of Ryde does not align with undisclosed DPIE assumptions regarding changes in attribution overtime.

As such, it is possible that the 2026 to 2036 targets would actually be more in line with the draft LHS targets.

3.3.3 Implications

An analysis of the potential impacts of COVID-19 on City of Ryde net migration to 2036 indicates that:

- Natural increase would continue to be a major driver of population growth in City of Ryde, representing an increase of around 1,000 to 1,500 people per annum over the 2016 to 2036 period
- Impacts to net migration would be most severe in the 2019/20 to 2021/22 financial years, with overseas migration largely suspended during this time
- Slowing of domestic migration could result in a lower negative net migration interstate and intra-state impacts, somewhat softening the short term drop in overseas migration
- Migration impacts are expected to normalise by June 2024, though overseas migration is not anticipated to return to pre-COVID-19 levels
- Despite reductions in population growth, models show general alignment with the draft LHS housing targets, owing to those housing targets being based on 2016 DPIE population projections, which had a lower population anticipated.

4.0 POTENTIAL RESPONSES

Due to the COVID-19 pandemic, City of Ryde's future population will likely diverge from the 2016 DPIE and forecast .id projections which were used as a baseline for preparing the housing targets identified in the draft LHS. This divergence would largely be due to negligible overseas migration anticipated to occur between 2020 to 2022, with overseas migration not expected to return to near 2019 levels until 2024. This anticipated interruption to overseas migration accounts for around four years of a twenty year strategy.

Assuming that the 2019 population projections accurately represent what growth would have occurred in the absence of the pandemic, this reflects a reduction in population in 2036 of around 11,500 people. For the purposes of the draft LHS, this result in negligible change in population, as that is about the difference between the 2016 projections and HillPDA's COVID-19 projections.

As shown in the initial projections in Section 3.3, this disruption could be contained to the 2016 to 2026 period, with the 2026 to 2036 period recovering to the draft LHS target levels.

As discussed in Section 3.3, the approach is limited by a lack of visibility into longer term DPIE assumptions regarding distribution of future overseas migrants. HillPDA understands that longer term scenarios are being reviewed by DPIE and NSW Treasury.

Based on the existing information regarding the potential impacts of the COVID-19 pandemic on population growth and DPIE's most recent population projections, consideration could be given to:

- Amending the draft LHS population projections and associated households/housing targets downward for the 2021-2026 period to account for reduced overseas migration associated with COVID-19 border closures
- Build flexibility into housing targets and housing policy responses currently within the draft LHS to allow the strategy to respond to market and demographic changes in the future.

These potential responses are discussed below.

4.1 Review housing targets

The COVID-19 pandemic will undoubtedly have an effect on the short to medium term population growth of City of Ryde resulting from reduced overseas migration. The 2020 NSW Budget expects this effect to be normalised by 2024, as does forecast .id. This is reflected in the Table 16, which shows a reduction in projected housing need of around 1,700 to 2,000 dwellings in the 2016 to 2026 period.

The 2026 to 2036 period could have a higher growth rate than anticipated in the draft LHS, largely resulting from changes in assumptions to both domestic and overseas migration.

The 2016 to 2021 housing target is set by the District Plan at 7,600 dwellings. Council is unable to adjust that target. It is also noted that City of Ryde's target in the District Plan was based on the 2016 population projections.

Council is able to reconsider its recommendation for the 2021 to 2026 target. However, the following is noted:

- The draft LHS recommends a target of 4,400 for the 2021 to 2026 period
- The projected scenarios in Section 3.3.2 suggest a dwelling requirement of between 4,300 and 4,500 for the 2021 to 2026 period

While overseas migration is anticipated to be reduced, the impact of this is offset by:

- The generally higher 2019 population projections by DPIE compared to the 2016 projections used in the draft LHS
- Maintained natural increase

- Reduced loss in population due to intra-state and interstate migration
- A relatively short duration of overseas migration closures during this period.

It is also possible that trends in negative net intra-state migration could slow or reverse due to reduced demand on dwellings from potential overseas migrant residents.

Given the many pressures on housing in City of Ryde and the relatively short duration of the most severe overseas migration impacts, it does not appear to be necessary to reduce either the 2021 to 2026 or the 2026 to 2035 targets. However, the draft LHS could acknowledge that the 2021 Census would provide more information regarding the effects of the COVID-19 pandemic, with the potential for an updated population projection in following years.

4.2 Build flexibility into the LHS and housing targets

Since the housing targets of the draft LHS were substantially completed based on the 2016 DPIE projections (used for the North District Plan’s housing targets) and the forecast .id targets, there have been structural changes relevant to housing policy, separate from the COVID-19 pandemic:

- Housing approvals and completions across Greater Sydney have continued to drop from 2016 highs, reflecting a general softening in the market⁶
- Growth in net overseas migration has reversed following the commencement of the COVID-19 pandemic
- 2019 DPIE projections were released prior to the above events and consequently did not account for these near term changes resulting in forecasted significant near term growth which is unlikely to be realised.

In addition to the above, the historical cyclical pattern of peaks and troughs in the housing market is likely to continue, similar to spikes in housing approvals that occurred in the 2016 to 2018 in City of Ryde, which have led to significant shifts in housing delivery, demographics and infrastructure demand over a short period of time. While the impact of the COVID-19 pandemic is severe it is expected to be short term. It is clear that long term strategies, such as the LHS, must be flexible enough to deal with short term fluctuations and uncertainty.

As discussed in the draft LHS, City of Ryde has sufficient capacity under existing controls to meet the future anticipated demand for housing. The draft LHS identifies several opportunities to proactively plan and manage the growth of centres, as well as expand medium density housing provision in surrounding neighbourhoods.

A recommendation discussed in draft LHS Section 9.5.2 is for Council to review and update masterplans relating to its existing centres on a rolling five-year basis. Further, Section 9.12 discusses several potential investigation areas, their strengths, weaknesses and priority levels for Council review. The major near-term priority is West Ryde, where Council has signalled interest in revitalisation initiatives. Otherwise, the draft LHS does not set timeframes for planning and preparing masterplans.

The intent of these recommendations is to provide Council multiple options for planning for growth and responding to challenges and opportunities in the housing policy environment. At the same time, it does not make clear that once set, timeframes should be adaptable and reflect the needs or opportunities of the day.

A new action in Chapter 10, Table 42, could identify the need to revisit the masterplan investigation schedule on an annual basis. This would allow Council to respond to events such as the COVID-19 pandemic by either pulling forward masterplanning for a high-potential area if additional housing is required or pushing back an investigation area if it would likely result in oversupply. Such an action would allow for responsive and flexible planning that could cope with future changes.

⁶ <https://www.planning.nsw.gov.au/Research-and-Demography/Metropolitan-Housing-Monitors/Metropolitan-Housing-Monitor> (Accessed 15 November 2020)

4.3 Next steps

Should you have any further questions regarding the potential effects of the COVID-19 pandemic on the dwelling demand in City of Ryde or implementation of the above responses in the draft LHS, please contact Taylor Richardson at 0459 848 430.

Yours sincerely,

Signed by



.....
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APPENDIX A

The personal characteristics of the projected population relating to age and household structure, as per DPIE's 2019 and 2016 population projections, are provided in the tables below.

Population projections from the releases are provided for age groupings, summarised in Table 17 and Table 18.

Table 17: Projected population by age group (2019 release)

Age group	2016	2021	2026	2031	2036	Change	Change
0-4	7,646	9,136	11,601	12,839	12,961	5,315	70%
5-9	6,730	8,138	9,489	11,275	12,174	5,444	81%
10-19	12,007	13,981	16,394	18,460	20,923	8,916	74%
20-44	50,668	65,756	74,434	77,548	79,070	28,402	56%
45-64	27,259	31,201	35,661	41,327	47,948	20,689	76%
65-84	13,933	16,612	19,982	23,517	26,320	12,387	89%
85+	3,027	3,357	3,831	4,520	5,877	2,850	94%

Source: NSW DPIE, 2019

Table 18: Projected population by age group (2016 release)

Age group	2016	2021	2026	2031	2036	Change	Change
0-4	7,550	8,750	9,650	10,050	10,250	2,700	36%
5-9	6,750	7,800	8,700	9,450	9,700	2,950	44%
10-19	11,650	13,250	15,100	16,700	18,100	6,450	55%
20-44	48,900	54,650	58,200	60,200	62,100	13,200	27%
45-64	27,550	30,400	33,350	37,050	40,750	13,200	48%
65-84	14,550	17,000	19,950	22,800	24,900	10,350	71%
85+	3,050	3,350	3,800	4,550	5,900	2,850	93%

Source: NSW DPIE, 2016

Household projections based on the 2019 and 2016 projected populations are provided by household type, summarised in Table 19 and Table 20.

Table 19: Projected household structure (2019 Release)

Household type	2016	2021	2026	2031	2036	Change	Change
Couple only	10,275	13,053	14,970	16,114	17,291	7,016	68%
Couple with children	15,782	19,100	22,552	25,339	27,400	11,618	74%
Single parent	3,672	4,362	5,168	5,968	6,730	3,058	83%
Multiple and other family households	2,113	2,573	2,892	3,118	3,317	1,204	57%
Total family households	31,842	39,088	45,582	50,539	54,739	22,897	72%
Lone person	10,240	12,585	14,799	16,751	18,825	8,585	84%
Group	2,660	3,328	3,608	3,746	3,933	1,273	48%
Total non-family households	12,900	15,913	18,407	20,496	22,758	9,858	76%
Total	44,742	55,001	63,989	71,035	77,497	32,755	73%

Source: NSW DPIE, 2019

Table 20: Projected household structure (2016 Release)

Household type	2016	2021	2026	2031	2036	Change	Change
Couple only	10,450	11,700	12,750	13,750	14,850	4,400	42%
Couple with children	14,250	15,900	18,150	19,950	21,350	7,100	50%
Single parent	3,450	3,850	4,350	4,900	5,450	2,000	58%
Multiple and other family households	1,700	1,850	2,050	2,200	2,300	600	35%
Total family households	28,650	32,050	36,250	39,800	42,850	14,200	50%
Lone person	10,200	11,400	12,900	14,450	16,050	5,850	57%
Group	2,500	2,600	2,800	2,950	3,050	550	22%
Total non-family households	12,700	14,000	15,700	17,400	19,100	6,400	50%
Total	41,350	46,050	51,900	57,200	62,000	20,650	50%

Source: NSW DPIE, 2016



City of Ryde

Draft Local Housing Strategy

Prepared for
City of Ryde

February 2020

HiIPDA
CONSULTING
**place
design
group.** STUDIO **GL**

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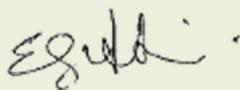
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Quality Control

This document is for discussion purposes only unless signed and dated by a Principal of HillPDA.

Reviewer

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Aerial photograph of Epping town centre ; Photo by unknown author licensed under CC BY-SA

Executive Summary

This Draft Local Housing Strategy sets out a plan for delivery of new housing in the LGA for the next 10 to 20 years. It has informed the development of the Ryde Local Strategic Planning Statement (LSPS) and supports Council’s vision to align the housing growth with provision of infrastructure, services and community facilities.

This strategy has been developed to meet the requirements of the Greater Sydney Commission. The content and study approach have been designed to accord with the *Local Housing Strategy Guideline and Template* (Department of Planning and Environment, 2018). The Draft Local Housing Strategy considers the provisioning of housing in the context of:

- Relevant State and Council statutory and policy context
- Local demography including the characteristics of dwellings and households
- Trends in the supply of housing
- Projected dwelling demand
- Consultation outcomes
- Strategic responses to medium and long term housing delivery.

Housing vision

City of Ryde has established a clear housing vision in their Local Strategic Planning statement. Included as part of the vision is a desire that:

The housing needs and expectations of the City of Ryde community are met through the provision of a range of housing types including affordable housing.

Overall, the Local strategic planning statement aims for *“a liveable, prosperous and connected city, that provides for our future needs while protecting nature and our history. A city with diverse and vibrant centres, our neighbourhoods reflect and service our residents and businesses. Our well-planned places enhance the health, wellbeing and resilience of our future community. They also foster innovation, equity, inclusion and resilience.”*

Housing target

The District Plan sets a housing target of 25,950 additional dwellings in the District by 2021 of which 7,600 are to be in Ryde LGA. Notably, the housing target for Ryde LGA is approximately double the target for any other LGA

in the North District. Further, the plan proposes that Ryde LGA should accommodate almost one third of the total dwelling target for North District.

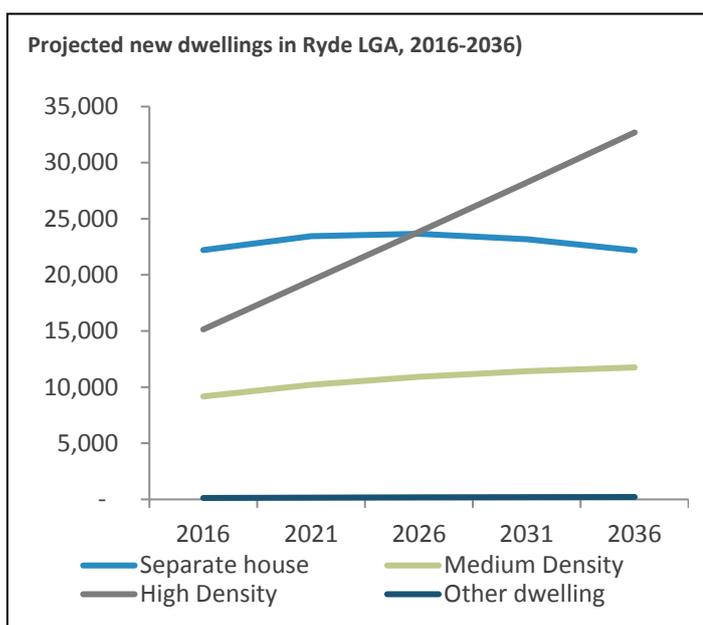
The ability of the LGA to meet this target is examined in this document. A review of dwelling completions since 2016 and dwellings in the development pipelines suggests that dwelling delivery is likely to meet or exceed the target.

Housing demand and supply

The population of Ryde City has been growing at a rate of 2.0 per cent per annum between 2006-2016, which is higher than Greater Sydney of 1.7 per cent. Population forecasts suggest that the annual population growth rate is expected to increase in the short term and then steadily decrease to 2036. The LGA is forecast to have a population of 167,109 by 2036, an additional 39,663 people, signalling a significant need for additional housing in the LGA to 2036.

The LGA has a relatively large proportion of young workforce aged people (25-34 years) and a high proportion of non-English speakers. The number of students in the LGA that are attending University or TAFE is increasing suggesting a potential need for additional housing suited to the needs of students. The median household’s income was similar to Greater Sydney, although, there is significant variation in household incomes across the LGA with the suburbs of Ryde (Top Ryde) and Macquarie Park having higher concentrations of lower income households.

At the 2016 Census the LGA had 43,012 dwellings, of which around 46 per cent were separate houses, 20 per cent were medium density and 33 percent were high density. High and medium density dwellings are highly concentrated in Marsfield, West Ryde, Meadow Bank/Melrose Park and Ryde (Top Ryde). Overall, the LGA has a higher proportion of dwellings with 2 bedrooms and studio or 1 bedroom, and a lower proportion of dwellings with 3 and 4 bedrooms when compared to Greater Sydney. Notably, 76 per cent of separate houses had at least one spare bedroom, with 45 per cent having at least two spare. The fastest growing household type in the LGA is couples with children.



The LGA has a high and growing proportion of dwellings that are rented. Between the 2011 and 2016 Census private rentals increased by 3,097 dwellings. Social housing in Ryde is decreasing with the LGA having 1,840 social dwellings in 2011 and 1,660 dwellings in 2016, a decline of almost 10 per cent. In 2016 approximately 12.1 per cent of Ryde LGA households were experiencing housing stress compared with 11.8 per cent in greater Sydney.

Projections suggest that between around 20,000 and 22,000 additional dwellings will be needed between 2016 and 2036 in the City of Ryde.

Capacity to accommodate housing growth

This strategy supports focussing housing growth in centres which is consistent with the Greater Sydney Commission’s North District Plan and current best practice in planning. This approach maximises benefits from

infrastructure investments and will offer residents the best possible access to jobs as well as the potential for reduced commute times and increased leisure time.

Looking beyond 2021, each centre in the LGA has been examined and the potential to accommodate additional housing, under current planning controls, has been estimated. It is estimated that the centres could potentially accommodate between 4,500 and 10,800 dwellings on private sites that have not otherwise been identified for development. This is in addition to around 8,900 dwellings currently in the development pipeline.

The Macquarie University/Herring Road Station Precinct has the greatest potential for development within the existing pipeline, with approximately 8,650 dwellings. This includes the State Government's priority precinct.

Approximately 2,082 hectares, or 51 per cent of the area of Ryde LGA, is zoned R2 Low density residential. Dwelling development in these areas is likely to be limited to dual occupancies or multi dwelling housing. HillPDA has undertaken an analysis of the capacity of R2 zoned land in Ryde LGA and estimated up to around 5,300 dwellings could be delivered in these areas.

These projections suggest that between 2016 to 2036, between 20,200 and 22,000 new dwellings are likely to be required, with approximately 35,000 additional dwellings capable under current controls. The analysis suggests overall, the current planning controls provide sufficient capacity to meet future requirements to 2036. However, a review of planning controls will be needed to ensure a long-term supply of housing land.

Implications of Part 3B of the Codes SEPP

Part 3B of the Codes SEPP is scheduled to commence in Ryde in July 2020 allowing certain medium density housing types as complying development including

- Dual occupancy developments on land with an area of 580 m² and a width of 15 m
- Dual occupancy developments on land with an area of 580 m² and a width as low as 12 m, if rear vehicle access is provided
- Multi dwelling housing (terraces) on land with an area of 900 m² and a width of 18 m
- Manor houses, a form of residential flat building on land with an area of 600 m² and width of 15 m.

The development of these housing typologies would be subject to the design and site requirements outlined in the Codes SEPP and the accompanying design guidelines. As such, not every site that meets the above requirements would be suitable for development and would need to undergo assessment by a certified planner.

The commencement of Part 3B controls will result in minimum frontage requirements for most dual occupancies decreasing from 20 m to 15 m. These new controls will mean that approximately:

- 11,626 lots have been identified as being larger than 580 m² with a frontage over 15 m
- 7,050 lots would be capable of delivering three-unit manor houses, each providing an additional two dwellings
- 937 lots would be capable of delivering four-unit manor houses, each providing an additional three dwellings
- 2,186 lots would be capable of dual occupancy development.

Alternatively, if manor houses were not permitted, the 11,626 lots would be capable of dual occupancy development, each providing an additional dwelling. As such, the commencement of Part 3B controls would result in a significant increase in dwelling capacity. However, the assessment undertaken for this strategy suggests that the additional dwelling potential arising from the commencement of Part 3B is not required for the LGA to meet the forecasted dwelling increases into 2036.

The implications of dispersed housing delivery for service delivery, infrastructure planning and the retention of suburban character must be carefully considered. It is suggested that Council's review of the *Ryde Local Environmental Plan 2014* should seek to manage the potential for dispersed housing delivery through complying development pathway.

Stakeholder views

Stakeholder engagement undertaken for this study and the Draft Local Strategic Planning Statement revealed that stakeholders:

- Are concerned that high-density housing is threatening the visual amenity of the character of the area
- Support low-density, and to a lesser degree, high-density housing to meet the needs of different populations
- Highly value of heritage and local character
- Feel that housing delivery has not been supported enough by infrastructure
- Strong support for light rail, road improvements, and public transport improvements to the region
- New housing development should consider the needs of older populations
- Low density areas are not being serviced at the same level as higher density areas
- Housing affordability is an issue in Ryde
- Medium density can provide a transition between high and low density areas.

Implications

The evidence and analysis offered the following key findings:

- Current planning controls are likely sufficient to meet the demand anticipated by DPIE and forecast .id population and dwelling projections, offering Council the opportunity to adjust planning and design controls to target better dwellings, instead of simply more dwellings.
- City of Ryde's neighbourhoods and centres provide a range of highly valued local character areas, ranging from low density and historically significant precincts, to established centres serving the local communities, to new high-density developments housing new households.
- Centres offer opportunities to focus growth under current controls, with benefits associated with locating homes around public transport, community facilities and other infrastructure. However, in some centres, multiple constraints appear to have delayed growth.
- City of Ryde has recently delivered a large amount of high-density placing considerable stress on local infrastructure.
- Demand for medium density development remains strong, with support expressed for medium density development at the edge of centres both from existing and potential future residents.
- Existing and anticipated future populations will require significant investment in State and local infrastructure.
- Significant housing stress, lack of social housing options and employment characteristics suggest that affordable housing options, such as those outlined in Council's affordable housing policy would benefit the community.
- A review of planning and design controls suggest that provisions relating to protection, delivery and maintenance of the natural environment, within and without individual lots, may not be delivering sufficient ecological and environmental amenity benefits.

Suggested strategic directions

The strategic directions are summarised below.

Strategic direction	Key actions
Adopt housing delivery targets	<ul style="list-style-type: none"> Plan for an additional 20,000 to 22,000 dwellings by 2036 Develop a program of master planning for centres beginning with West Ryde Mitigate the effects of Part 3B of the Codes SEPP Undertake annual monitoring of housing delivery
Focus growth in centres	<ul style="list-style-type: none"> Implement master planning program Undertake feasibility testing when developing planning controls
Increase the supply of medium density dwellings	<ul style="list-style-type: none"> Expand medium density development around centres Encourage innovative and improved design outcomes
Match housing and infrastructure delivery	<ul style="list-style-type: none"> Review developer contributions plans Develop infrastructure plans in alignment with centre master planning Advocate for State infrastructure as needed
Refine planning controls	<ul style="list-style-type: none"> Review and refine DCP provisions Address current apartment design issues to achieve better outcomes Identify local character areas.
Improve housing design	<ul style="list-style-type: none"> Identify and preserve local character Review DCP provisions Promote design excellence and innovative housing design Encourage environmentally sensitive design
Mandate affordable housing	<ul style="list-style-type: none"> Continue to implement Ryde Affordable Housing Policy Determine affordable housing contribution rates using feasibility testing in areas to undergo up lift Monitor the delivery of affordable housing through these mechanisms
Mitigate Impact of Part 3B of the Codes SEPP	<ul style="list-style-type: none"> Obtain exemptions or amendments to relevant provisions of Part 3B of the Codes SEPP Part 3B OR Develop planning proposal to prohibit multi dwelling housing in R2 Low Density Residential areas and increase minimum lot size for dual occupancies to manage the location of housing growth
Investigate areas for long term growth	<ul style="list-style-type: none"> Investigate nominated areas in centres for potential increase residential Implements masterplans as they are developed Undertake regular reviews of planning controls and outcomes
Other actions	<ul style="list-style-type: none"> Revisit and revise asset management strategies with the goal of supporting projected population growth Partner with community housing providers and private sector developers to maximise affordable housing delivery Develop urban tree canopy policy for private and public areas Develop laneway embellishment policy to support rear-access development Engage with State government to encourage high quality development that aligns with the housing vision Advocate for the provision of infrastructure to support the needs of projected populations

INTRODUCTION

1.0 INTRODUCTION

Ryde Council has engaged HillPDA to prepare a local housing strategy to inform the review of the *Ryde Local Environmental Plan 2014*.

The Ryde Local Government Area (LGA) is a unique place to live in the Greater Sydney Region, with a valued natural environment, strong suburban character with locally and regionally significant centres. Ryde LGA contains and is surrounded by significant natural features, with Lane Cove National Park forming the northern and eastern boundaries, and Parramatta River forming the southern boundary of the Council. These offer substantial environmental amenity to residents, with important biodiversity values. Ryde's role within the eastern economic corridor is also critical and this provides the capacity to deliver housing growth close to specialised jobs.

In recent years, parts of the LGA have supported historically high residential growth associated with urban renewal, delivery of mass transit and State planning initiatives. Having already gone through a period of significant growth, the Ryde community has indicated that it wants to see balance in how their neighbourhoods and centres accommodate this growth. A clear strategy is needed to develop a medium to long term vision, balancing the need for housing growth with the community's desire to:

- Improve sustainability and design outcomes for the LGA and in particular with provision of new housing
- Protect the natural environment, water catchments and biodiversity of the LGA
- Maintain suburban character compared with the emerging high-density character of urban renewal areas
- Ensure that population and housing growth is matched with the provision of infrastructure, services and community facilities
- Support communities by providing housing choice that suits the LGA's demography.

This strategy sets out a plan for delivery of new housing in the LGA for the next 10 to 20 years. It has informed the development of the Ryde Local Strategic Planning Statement (LSPS) and supports Council's vision to align the housing growth with provision of infrastructure, services and community facilities.

This strategy has been developed in accordance with the *Local Housing Strategy Guideline and Template* (Department of Planning and Environment, 2018), and considers the provisioning of housing in the context of:

- Relevant State and Council statutory and policy context
- Local demography including the characteristics of dwellings and households
- Trends in the supply of housing
- Projected dwelling demand
- Consultation outcomes
- Strategic responses to medium and long term housing delivery.

1.1 City of Ryde

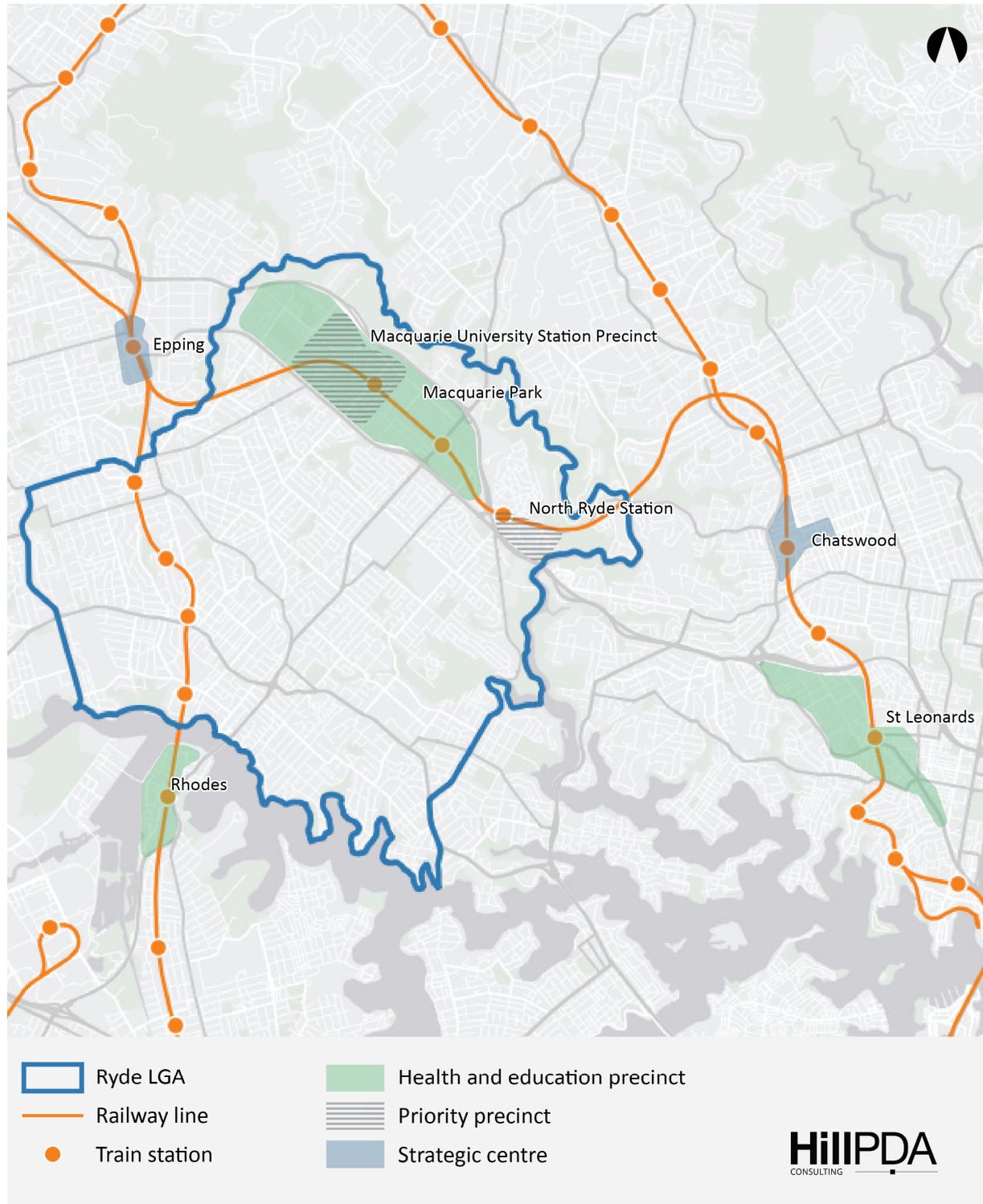
Ryde LGA is located about 12 kilometres (km) north-west of Sydney CBD, within the North District of Greater Sydney. The LGA extends generally from the Lane Cove River along the north-eastern boundary, to the Parramatta River in the south and Terrys Creek to the west. The LGA adjoins Hunters Hill LGA to the east, Parramatta LGA to the west and Ku-ring-gai LGA to the north.

Ryde LGA comprises 40.65 square kilometres. The LGA was settled in 1792 with the first land granted along the northern bank of the river between Sydney and Parramatta. In 2018, the LGA population is estimated to be 127,446. The urbanised portions of Ryde LGA largely consist of low-density residential areas, complemented by medium and high density commercial and mixed use centres. In 2016, Ryde LGA had 46,149 dwellings. Detached

homes make up 46.2 per cent of the dwelling types in Ryde. Medium to high density dwellings make up the remainder with 52.9 per cent.

Ryde LGA contains and is proximal to regionally significant strategic centres and priority precincts as shown in Figure 1. Together, these centres and precincts make Ryde LGA a highly desirable place to work and live.

Figure 1: Local Government Area context



1.2 Purpose of this report

The strategy is to meet the requirements set out in the Greater Sydney Commission's *Greater Sydney Region Plan - A Metropolis of Three Cities* and *North District Plan* including:

Councils are to prepare local or district housing strategies that respond to the principles for housing strategies and housing targets published in the District Plans.

Housing strategies will outline how housing growth is to be managed, identify the right locations for additional housing supply in each local government area and inform updates of local environmental plans.

Updated local environmental plans that respond to housing strategies are to be submitted within three years of the finalisation of District Plans, or two years in the case of priority councils where funding has been provided.¹

The North District Plan identifies a target of 7,600 additional dwellings in Ryde LGA between 2016 and 2021. The North District is to provide 25,950 dwellings between 2016 and 2021 and 92,000 dwellings by 2036. The North District Plan also states: -

Each council is to develop 6–10 year housing targets. The 6–10 year housing targets will be developed iteratively through the housing strategy. The strategy is to demonstrate capacity for steady housing supply into the medium term.

1.3 Objectives

The objective of this strategy is to set a clear plan for housing in the LGA for the next 10 and 20 years.

The strategy:

- Sets a clear plan for the delivery of housing to meet future needs
- Aligns housing delivery with the NSW Government's strategic plans
- Has regard for a comprehensive evidence base on housing needs, infrastructure availability, physical constraints and present opportunities.

The Strategy is to align with Council's vision for housing and the NSW Government's strategic plans. The Strategy presents Council's response for how the housing components of the Regional Plan and District Plan will be delivered locally.

In developing the Housing Strategy, an evidence base has been established and considered including demographic factors, the supply and demand for housing, local land use opportunities and constraints among other factors.

The Strategy aligns anticipated housing growth with supporting and necessary infrastructure and social services such as educational facilities, health facilities, open spaces and public transport. The Strategy identifies opportunities for growth to support a growing population, ageing community and projected changes in household structure. The Strategy includes an implementation strategy for the delivery of new housing and related infrastructure.

The Strategy incorporates the community's vision and aspirations for the future development of land use in the LGA. In particular, the strategy has regard for the community's expectation that heritage values and diverse character areas will be maintained.

¹ <https://www.greater.sydney/metropolis-of-three-cities/liveability/housing-city/greater-housing-supply>, Objective 10, Action 3

Overall, the Strategy integrates local level planning with broader State and Regional Plans for infrastructure, employment, open space and other elements of the built and natural environments. The Strategy is an important input to the preparation of Council's Local Strategic Planning statement and forthcoming amendments to *Ryde Local Environmental Plan 2014* (Ryde LEP 2014).

1.4 Housing Vision

The draft Ryde Local Strategic Planning Statement establishes a clear vision for the Ryde LGA to 2036. Vision statements are provided for the Ryde LGA as a whole, with more specific statements for certain aspects, including housing. These visions have been provided below. Combined, they provide a path forward for the provision of housing in Ryde to 2036 that reflects the varied and established nature of Ryde's centres and neighbourhoods.

20-year vision for land use planning in the City of Ryde:

A liveable, prosperous and connected city, that provides for our future needs while protecting nature and our history. A city with diverse and vibrant centres, our neighbourhoods reflect and service our residents and businesses. Our well-planned places enhance the health, wellbeing and resilience of our future community. They also foster innovation, equity, inclusion and resilience.

Housing growth and relationship to infrastructure vision:

To provide a range of housing options in areas appropriately serviced by infrastructure, while preserving unique local character.

Housing supply, affordability, diversity and amenity vision:

The housing needs and expectations of the City of Ryde community are met through the provision of a range of housing types including affordable housing.

Centres vision:

The City of Ryde's five centres – Ryde, Eastwood, West Ryde, Gladesville and Shepherds Bay – will be compact, sustainable, mixed centres servicing their local neighbourhoods. Each will have a distinct identity drawn from its history and community. These centres will be accessible and connected.

1.5 Approach

This housing strategy has been developed to comply with the NSW Government’s Local Housing Strategy Guideline dated 2018.

Figure 2: Simplified approach to developing the Local Housing Strategy



The guideline requires consideration of demographic factors, local housing supply and demand, and local land-use opportunities and constraints. A template for a housing strategy is provided in the Guidelines. This report includes all required information however the structure has been altered slightly. For example, information on constraints have been compiled into a separate chapter due to the extensive number of constraints that are relevant to housing outcomes in the LGA. The location of the required information is indicated in Table 1.

Table 1: Compliance with Guideline

Guideline reference	Required information	Location in this document
1.1	Executive summary	Executive summary
1.1	Planning and Policy context	Section 2
1.2	LGA snapshot	Section 3
1.4	Housing vision	Section 1.4
2.1	Demographic overview	Section 4
2.2	Housing demand	Section 5.2 to 5.4
2.3	Housing supply	Section 5.1
2.4	Land use opportunities and constraints	Section 3.3 to 3.6
2.5	Analysis of the evidence base	Section 6
3.1	Local housing strategy objectives	Section 9
3.2	Land use planning approach	Section 7 and Section 9
3.3	Mechanisms to deliver the options	Section 9
3.4	Evaluation of the options	Section 9
4.1	Implementation and delivery plan	Section 10
4.2	Planning proposal	N/A
4.3	Monitoring and review	Section 10

1.6 Report structure

This report is structured as follows:

- Section 1 | Introduction
- Section 2 | Planning policy and context
- Section 3 | Strategic context
- Section 4 | Demographic overview
- Section 5 | Assessment of housing need
- Section 6 | Development potential
- Section 8 | Stakeholder views
- Section 7 | Key directions for housing delivery

PLANNING POLICY
AND
CONTEXT

2.0 PLANNING POLICY AND CONTEXT

The following policy context provides an overview of the relevant legislation, policies and State and local plans that currently apply or influence residential development in Ryde LGA.

2.1 NSW Government policies

2.1.1 Greater Sydney Region Plan

The Greater Sydney Commission’s Greater Sydney Region Plan sets out a vision for a city where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. The plan contains 10 Directions which establish the aspirations for the region over the next 40 years. The directions (Table 2) are translated into objectives, with Objectives 10 and 11 being particularly relevant to housing supply, diversity and affordability for Ryde LGA.

Table 2: Greater Sydney Region Plan Directions

Direction: Housing the city	Implications
Objective 10: Greater housing supply	<ul style="list-style-type: none"> As part of the current level of supply, a range of housing types, tenures and price points will be needed to meet demand A range of housing types provides for the needs of the community at different stages of life and caters for diverse household types Planning can link the delivery of new homes in the right locations with local infrastructure Planning and designing for better places respects and enhances local character Councils are to work with the Greater Sydney Commission and State agencies to establish agreed 6–10 year housing targets for their local government area Councils are to identify specific attributes that make local areas suitable for housing supply beyond 10 years Housing strategies are to be prepared by councils for a local government area or district and be given effect through amendments to local environmental plans.
Objective 11: Housing is more diverse and affordable	<ul style="list-style-type: none"> There is a strong need for a more diverse housing supply in Greater Sydney Housing choices, including affordable rental housing reduces the need for people to go into social housing and also supports a pathway for people to move out of social housing A diversity of housing types, sizes and price points can help improve affordability Increasing the supply of housing that is of universal design and adaptable to people’s changing needs as they age is also increasingly important across Greater Sydney Social housing is a form of affordable housing that caters to households experiencing the highest housing stress and social disadvantage Social housing delivery needs to be accelerated to cope with the growing waiting list. More affordable rental dwellings are needed as a stepping stone for people in social housing who are capable of entering the private rental market, thereby freeing up housing for those most in need Rental accommodation needs to be delivered close to public transport and centres, and offer the opportunity to include Affordable Rental Housing Schemes if viable Foreshadows potential future innovative models to achieve more affordable homes through having smaller homes, shared facilities and having apartments and car spaces sold separately.

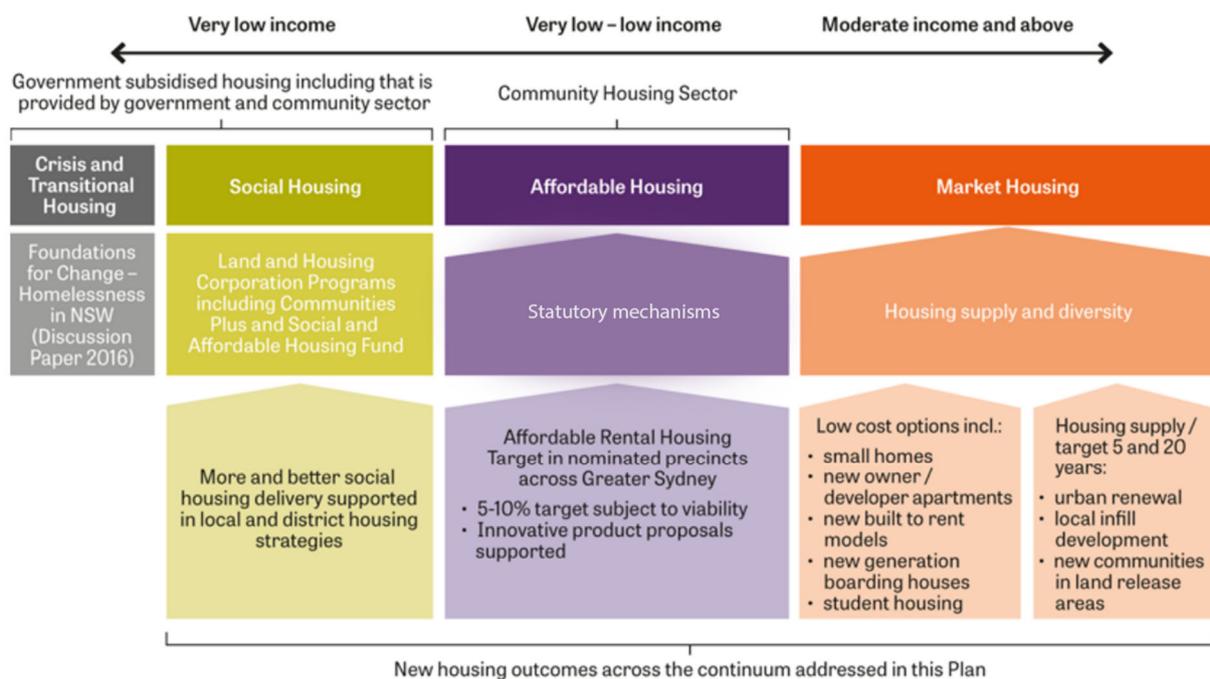
Source: Greater Sydney Region Plan (March 2018)

Ryde LGA is within the Eastern Harbour City and is located in the North District. The population of the Eastern Harbour City is projected to grow to 3.3 million by 2036. Housing targets have been established, as a tool, to support the creation and delivery of housing supply for the short, medium and long terms. The Greater Sydney Commission recognises the need for housing to be delivered in different types, tenures and price points to improve affordability. The Greater Sydney Region Plan’s targets for housing supply and choice will meet the growing and changing needs of the community. Targets for North District are 25,950 additional dwellings in the five years to 2021 and 92,000 new dwellings over 20-years. These are broken down by local government area in the North District Plan (refer to Section 2.1.2).

The Eastern Harbour City is a mature city with a mix of well-established communities, including traditional suburban neighbourhoods and Australia’s most highly urbanised areas. Growth will be through urban renewal with increased infrastructure and services, open spaces and public places. Infill development that is sympathetic to its context should be focused on improved local connections and maximise opportunities for growth brought about by new mass transit.

Providing housing diversity means providing housing for a range of income groups at various points on the housing continuum (Figure 3).

Figure 3: Housing continuum initiative and programs



Source: Greater Sydney Commission, Greater Sydney Region Plan (Figure 19), p. 69

Measures that address housing affordability are also included, with the implementation of Affordable Rental Housing Targets an initial focus.

The Plan recommends an Affordable Rental Housing Target, ‘generally in the range of 5-10 per cent of new residential floor space’ in defined precincts prior to rezoning as a mechanism to provide additional affordable housing supply in Greater Sydney. Ryde Council has already undertaken significant work in the area of affordable housing and as such, affordable housing is not a focus of this Local Housing Strategy.

Ryde Council, along with all councils within the Greater Sydney are to:

- Prepare Local Housing Strategy (refer to Objective 10)
- Develop 6–10 year housing targets (refer to Objective 10)

- Implement Affordable Rental Housing Targets (refer to Objective 11) (outside the scope of this Local Housing Strategy).

2.1.2 North District Plan

Ryde LGA is part of the Greater Sydney Commission's North District Plan (District Plan). The District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It contains the planning priorities and actions for implementing the *Greater Sydney Region Plan, A Metropolis of Three Cities* at a district level. Table 3 outlines the North District target distribution to 2021.

Table 3: North District housing targets

LGA	0–5-year housing supply target: 2016–2021
Hornsby	4,350
Hunter's Hill	150
Ku-ring-gai	4,000
Lane Cove	1,900
Mosman	300
North Sydney	3,000
Northern Beaches	3,400
Ryde	7,600
Willoughby	1,250
North District Total	25,950

Source: Greater Sydney Commission, North District Plan P42.

The District Plan requires Council to make provision for the anticipated growth associated with the 0–5 and 6–10 year housing targets (when agreed). The plan indicates a need to align to projected growth with existing and proposed local infrastructure and open space improvements (Planning Priorities N1, N5 and N12).

Planning priority N5 relates to “providing housing supply, choice and affordability, with access to jobs, services and public transport.”

The District Plan sets a housing target of 25,950 additional dwellings in the District by 2021 of which 7,600 are to be in Ryde LGA. Notably, the housing target for Ryde LGA is approximately double the target for any other LGA in the North District. Further, the plan proposes that Ryde LGA should accommodate almost one third of the total dwelling target for North District.

The District Plan reveals that:

- The greatest increase in population is expected in Ryde Local Government Area (51,700 additional people by 2036), largely due to the anticipated urban renewal in the area.
- This growth will increase the demand on existing services and infrastructure that across the District are at or nearing capacity.
- Over the 20 years to 2036, projections show an expected increase of 6,150 children aged four years and under, with more than half of this growth in Ryde and Ku-ring-gai local government areas.
- The NSW Department of Education estimates that across the District an extra 21,900 students will need to be accommodated in both government and non-government schools in the North District by 2036, a 20 per cent increase. Growth is projected to be greatest in Ryde (8,160).
- Ryde local government areas will have a 29 per cent increase in people aged 20–24 years between 2016-2036.
- Fifty per cent of Ryde LGA residents speak over 120 languages other than English. It is home to the most Cantonese and Mandarin speakers in the District.

- In the North Region there are four housing market demand areas. One of these runs through Ryde LGA being referred to as the Central North market which extends from Parramatta River through Ryde and Hornsby in the north-south corridor around the T1 Northern train line.
- Over the past five years, almost 55 per cent of dwelling completions were in Ryde, Ku-ring-gai, and Hornsby local government areas. Apartment completions have focussed on Ryde LGA and other locations along train lines.
- Additional capacity for housing supply is well progressed across much of the District including current State-led initiatives: Macquarie Park Urban Renewal Area including Macquarie University (Herring Road) Precinct and North Ryde Station Precinct and Macquarie Park investigation area.

The District Plan's vision for the district includes:

- Creating and renewing great places while protecting heritage and local character and improving places for people
- Enhancing the quality and improving access to open space, and increasing urban tree canopy
- Enhancing the role of the Eastern Economic Corridor, including North Sydney as part of the Harbour CBD
- Protecting and enhancing the District's unique natural assets including waterways, coastlines and bushland
- A potential mass transit link from Parramatta to Epping would significantly improve the connection between Greater Sydney's two largest suburban centres of Macquarie Park and Greater Parramatta.

The Ryde Local Housing Strategy is to address the following:

- The delivery of five-year housing supply targets for the Ryde LGA to 2021
- The delivery of 6–10 year (for agreement) housing supply targets for the Ryde LGA to 2026
- Capacity to contribute to the longer term 20-year strategic housing target for the District
- The housing strategy requirements outlined in Objective 10 of the A Metropolis of Three Cities that include:
 - creating capacity for more housing in the right locations
 - supporting planning and delivery of growth areas and planned precincts as relevant
 - supporting investigation of opportunities for alignment with investment in regional and district infrastructure
 - supporting the role of centres.

The District Plan identifies the need for further work by the Greater Sydney Commission to support the implementation of the Affordable Rental Housing Targets including consideration of allocation, ownership, management and delivery models. The plan commits the NSW Department of Planning and Environment and the Greater Sydney Commission to jointly investigate ways to facilitate housing diversity through innovative purchase and rental models. The Plan indicates that affordable rental housing targets generally in the range of 5-10 per cent of new residential floor space are appropriate subject to viability. The requirements for affordable housing are being separately addressed by Ryde Council.

2.1.3 Local Housing Strategy Guideline

All councils within Greater Sydney are required to prepare a Local Housing Strategy in accordance with the relevant District Plan (North District Plan). These strategies must inform the preparation of a Local Strategic Planning Statement (another requirement for all NSW councils to prepare) and the review of Council's planning instruments to align with and implement the District Plan's priorities.

Local housing strategies are prepared by councils, in consultation with communities, to detail how and where housing will be provided in local areas. They include consideration of demographic factors, local housing supply and demand, and local land-use opportunities and constraints.

The draft Local Housing Strategy will be prepared in accordance with the *Local Housing Strategy Guideline and Template* and in consultation with Council and the local community.

2.1.4 Local Character and Place Guideline and Local Character Overlays

The Department of Planning, Industry and Environment released in February 2019 a *Local Character and Place Guideline* and a *Discussion Paper on Local Character Overlays*. The Discussion Paper outlines possible mechanisms to introduce Local Character Overlays and related provisions in a local environmental plan to support places with character and to link these places to specific development requirements or to vary or exclude a State policy. Once the State Government finalises the approach for local character there may be opportunities to set a desired future character for individual locations within the LGA within the LEP whereby providing local direction for State policies (such as the Codes SEPP) and additional considerations for development proposals.

2.2 Ryde Council policies

2.2.1 Ryde 2028 Community Strategic Plan

Council's Community Strategic Plan (CSP) was prepared in 2018 based on extensive community input. It aims to bring a stronger sense of balance and sustainability as the city grows and to use controls to see a greater range of housing, including affordable rental housing, to support the anticipated population growth over the coming decade.

The CSP includes priorities to support renewed neighbourhoods and places and to ensure that transport connections, local services and community facilities continue to serve the community well.

One key outcome of community consultation was that people are concerned about housing affordability and accessibility and acknowledge that some people in the community have particular needs and require specific services (CSP page 10).

Other key points relevant to developing a Local Housing Strategy are:

- By 2031 the projected increase in the Ryde LGA's population will require an additional 17,000 new dwellings, an increase of more than a third from now.
- This housing must meet the demand for choice and variety in the type of homes available, especially if there are fewer people living in each household.
- An average of 110 new dwellings will be required every month for the next 13 years to house our anticipated population increase to 2031.
- Strategically plan for affordable and varied housing options for our growing community while maintaining the character of our many neighbourhoods.
- By 2031 number of people who have reached retirement age will increase by more than 60% requiring particular services and safe access to more places.
- Many young families are moving to the Ryde LGA, with numbers of children and teenagers projected to increase more than 40 per cent by 2031.
- Denser living means that more people will be living in units. In 2016, 53 per cent of dwellings in the Ryde LGA were medium to high density, likely to increase significantly over the next decade.
- Protecting the local amenity of neighbourhoods and ensure they are well maintained, regulated, accessible, and safe.
- Sustained population and housing growth over the coming decade will put pressure on preserving our local character and heritage and sustaining Ryde's natural and urban environment.

- Actively advocating to the State Government and the Greater Sydney Commission so that future developments are appropriately considered and well planned to ensure that the character and liveability of their immediate neighbourhoods are maintained.
- Planning and designing our City to uphold and protect its unique character and encourage sustainable development, while also delivering diversity and housing choice.
- Urban renewal can offer a greater choice in the types of housing available as well as opportunities to prioritise the delivery of affordable housing for key workers and accessible housing for people as they get older.
- People want to see new transport connections and infrastructure in advance of new housing development, linking people to their local centres, around their neighbourhoods or to work.

2.2.2 Ryde Local Planning Study

In 2010, Council prepared *City of Ryde Local Planning Study* (Local Planning Study) in response to the NSW Government's 2005 Metropolitan Strategy, *City of Cities: A Plan for Sydney's Future* (Metropolitan Strategy) and the accompanying *Inner North Subregion: Draft Subregional Strategy* (Subregional Strategy). The Local Planning Study aimed to guide the preparation of a new comprehensive LEP for the Ryde LGA. The Study replaced the 1994 Residential Development Strategy *Improving Housing Choices and Housing Opportunities*.

The purpose of Local Planning Study was to:

- Guide future growth in Ryde over the next 10 years through a range of land use planning initiatives
- Inform the comprehensive Local Environmental Plan (LEP2011)
- Review and respond to the directions and actions of the Metropolitan Strategy and Draft Inner North Subregional Strategy, in particular to respond to the 12,000 dwelling target and 21,00 jobs target set for the Ryde LGA by the Draft Inner North Subregional Strategy.

The Local Planning Study included a housing study which was based on a series of background studies. The following points are the key findings based on future housing types:

- Small centres have the potential to provide some small amount of additional housing in a convenient and attractive location and alternate dwelling types.
- Additional residents in centres will support the local economy and add vitality to the life of a centre.
- Neighbourhood centres can continue to provide some housing choice in the form of shop top housing but have little potential for expansion.
- Transition areas, if established, would provide an opportunity for an alternative housing choice to the apartments of the centres and the free-standing houses of the low-density residential areas.
- Transition areas, if established, would provide additional housing in places which benefit from the being close to centres and public transport.
- Transition areas are places at the edges of centres which, if established, would moderate the impact of the higher scale and density of the centre on the low-density residential areas.
- Small dwellings, such as villas and duplex buildings, provide an alternate dwelling form suitable for a range of household types which are more affordable than a free-standing house.
- Large individual sites in the low-density residential areas have the potential to provide additional housing in the form of medium density development, however this would require a master plan to be prepared by a site's owner.

- Character studies will help determine the best places for changes to the low-density residential areas.²

The recommendations in the Local Planning Study informed the preparation of the Ryde LEP, resulting in significant residential development with unprecedented housing market activity and what was an unanticipated level of development take-up. This has resulted in a misalignment between development and delivery of necessary infrastructure and an impact on the character of Ryde LGA.

2.3 Statutory planning framework

2.3.1 State Environmental Planning Policy (Affordable Rental Housing) 2009

The *State Environmental Planning Policy (Affordable Rental Housing)* (ARH SEPP) was introduced in 2009 to increase the supply and diversity of affordable rental and social housing throughout NSW. Under the ARH SEPP affordable rental housing is defined as housing for very low, low and moderate income earning households as follows:

6(1) In this Policy, a household is taken to be a very low income household, low income household or moderate income household if the household:

- (a) has a gross income that is less than 120% of the median household income for the time being for the Greater Sydney (Greater Capital City Statistical Area) (according to the Australian Bureau of Statistics) and pays no more than 30% of that gross income in rent, or*
- (b) is eligible to occupy rental accommodation under the National Rental Affordability Scheme and pays no more rent than that which would be charged if the household were to occupy rental accommodation under that scheme.*

6(2) In this Policy, residential development is taken to be for the purposes of affordable housing if the development is on land owned by the Land and Housing Corporation.

Infill affordable rental housing is also provided for under the ARH SEPP and is intended to promote affordable rental housing in existing residential areas that are accessible by public transport. The policy allows additional floor space to a private proponent to develop dual occupancies, multi dwelling housing or residential flat buildings where a component is built to be affordable housing for a period of 10 years, managed by a community housing provider.

Requirements for infill affordable rental housing include:

- The use must be permitted with consent
- The site must not be a heritage item
- The site is within 400 metres walking distance of land within Zone B2 Local Centre or Zone B4 Mixed Use, or within a land use zone that is equivalent to any of those zones
- The development contains a percentage of affordable dwellings.

In the Ryde LGA there are many localities that are accessible (within 800m of a train station or 400m of a bus stop). This means that, subject to not being captured by a land-based exclusion, secondary dwellings may be carried out as complying development. In addition, development consent may be issued for dual occupancies, multi dwelling housing and residential flat buildings as infill affordable rental housing and boarding houses in most of the suburbs of Ryde LGA. Table 4 provides a summary of affordable rental housing requirements and locations where it can occur within Ryde LGA.

² <https://www.ryde.nsw.gov.au/files/assets/public/publications/lps/local-planning-study-04-housing.pdf>

Table 4: Affordable rental housing requirements & locations where permissible

Development type	Requirements	Ryde LGA
Dual occupancies, multi dwelling housing or residential flat buildings as infill affordable rental housing	<ul style="list-style-type: none"> The use must be permitted with consent The site must not be a heritage item Within 800m of a railway station entrance or 400m of a bus stop (an accessible area) The development contains a percentage of affordable dwellings for 10 years, managed by a community housing provider. 	Within 800m of a station or 400m of a bus stop in the following suburbs – Eastwood, Denistone, Denistone East, Denistone West, Meadowbank and West Ryde, Eastwood Station, Henley, Huntleys Point, East Ryde, Marsfield, Melrose Park, Macquarie University, Macquarie Park and North Ryde.
Secondary dwellings including as complying development	<ul style="list-style-type: none"> Land zoned R1, R2, R3 and R4 	All residential locations
Boarding houses	<ul style="list-style-type: none"> Land zoned R1, R2, R3, R4, B1 and B4, for R2 it must be within an accessible area (within 800m of a train station or 400m of a bus stop) 	Within 800m of a station or 400m of a bus stop in the following suburbs - Eastwood, Denistone, Denistone East, Denistone West, Meadowbank and West Ryde, Eastwood Station, Henley, Huntleys Point, East Ryde, Marsfield, Melrose Park, Macquarie University, Macquarie Park and North Ryde.

2.3.2 State Environmental Planning Policy No. 70—Affordable Housing (Revised Schemes) (SEPP 70)

SEPP No. 70 – Affordable Housing is a mechanism that allows specified councils to prepare an affordable housing contribution scheme for certain precincts, areas or developments within their local government area.

The Environmental Planning and Assessment Act 1979 enables councils to levy contributions for affordable housing once a LGA is named in *State Environmental Planning Policy No. 70 – Affordable Housing (Revised Schemes)* (SEPP 70). If named in SEPP 70, a council can seek to amend its local environmental plan (LEP) to reference an affordable rental housing contribution scheme and to levy affordable housing contributions.

In February 2019, the NSW Department of Planning and Industry published an amendment to SEPP 70 and released a guideline including all councils across the State in SEPP 70. The aim is to make it easier for councils to prepare affordable housing contribution schemes and increase affordable housing across NSW. Ryde Council is currently proceeding with preparation of an Affordable Housing Contributions Scheme.

2.3.3 State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Seniors Housing SEPP)

The Seniors Housing SEPP seeks to encourage the provision of housing (including residential care facilities) that increase the supply and diversity of housing that meet the needs of seniors and people with a disability. The SEPP encourages housing that utilises existing infrastructure and services, is of good design and supports ageing in place.

Land zoned for an urban purposes where dwelling houses, residential flat buildings, hospitals and development zoned for special uses (places of public worship, educational establishments, schools, seminaries and the like) are permitted, the following development types for seniors or people with a disability are also permitted under this SEPP:

- (a) *a residential care facility, or*
- (b) *a hostel, or*
- (c) *a group of self-contained dwellings, or*
- (d) *a combination of these but does not include a hospital.*

Location and access to facilities (shops and services) requirements are imposed on a development application for these uses. These requirements mean that this type of housing must be within 400 m walk (level pathway) of a public transport station or stop and shops/services. The policy does not apply to areas identified by Ryde LEP 2014 as a heritage conservation area.

There is good connectivity to centres and public transport within Ryde LGA, with many opportunities for Seniors Housing to be provided in the future. Typically, these would generally be most suitably located along the train lines within a radius of 400 m but may also extend to areas in a short walking distance to major roads, where bus services are common. However, development of seniors housing may compete with apartments in areas best served by public transportation, as they are typically zoned for higher density uses. This may mean that seniors living is a non-competitive land use, more competitive in lower density zones.

2.3.4 State Environmental Planning Policy No. 65 and Apartment Design Guide

SEPP 65 aims to deliver a better living environment for residents who choose to live in residential apartments, while also enhancing streetscapes and neighbourhoods. This is sought to be achieved through planning provisions for designing development of residential flat buildings and mixed use contained in the *Apartment Design Guide* (ADG).

It is intended that the desired outcomes be delivered through improved design quality that are to ensure sustainability, accessibility, amenity, safety, affordability and efficiency. The benchmarks that underpin these objectives are fully articulated in the ADG, which are then applied by design review panels, which are constituted to provide independent advice regarding development applications under the SEPP. SEPP 65 specifies the constitution and function of the design review panels.

The ADG specifies several design requirements for apartments and apartment buildings which influences the number of and type of dwellings that can be delivered. This includes minimum apartment sizes, apartment mix, balconies and other amenity considerations.

For Ryde LGA, SEPP 65 applies for shop top housing in the R1, R4, B1 and B4 zones and residential flat buildings within the R1, R3 and R4 zones.

2.3.5 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The Part 3B - Low Rise Medium Density Housing Code (Part 3B) of the Codes SEPP allows one and two storey dual occupancies, manor houses and terraces as complying development in the R1, R2 and R3 zones, where multi dwelling housing is permitted. Development proposals must meet the requirements of the Codes SEPP and the Design Criteria contained in the supporting *Low Rise Medium Density Design Guide*, to be considered complying development.

In Ryde LGA, multi dwelling housing is permissible under Ryde LEP in the R1, R2 and R3 zones. Multi dwelling housing is also permitted in the LEP in the R4 zone, however this zone is not called up by Part 3B of the SEPP.

Ryde LGA has been granted a deferral from commencement from the application of Part 3B of the Codes SEPP until July 2020. The deferral was issued to give Council time to establish where Part 3B would most appropriately apply. Without the application of the Low Rise Medium Density Housing Code, medium density housing is limited to low density dual occupancies and villas within Ryde LGA. Ryde Council has expressed specific concern with expanded and additional low-rise medium density development occurring within the R2 Low Residential Density zone.

HillPDA understands that Council is preparing a planning proposal to amend Ryde LEP 2014 to:

- Remove multi dwelling housing from the R2 Low Density Residential zone
- Modify development controls that relate to dual occupancy (attached) and multi dwelling housing (i.e. minimum site and density controls)
- Modify subdivision controls for dual occupancy (attached) development to ensure all such development approved prior to this planning proposal coming into effect and during a savings and transitional period will be permitted to be subdivided.

Removal of multi dwelling housing developments as permissible development in R2 zones would exclude those lands from the provisions of Part 3B relating to multi-dwelling housing, including manor house and terrace house proposals. This would exclude the zone from land uses permitted in Part 3B, including multi-dwelling housing, manor houses and terrace typologies. This would ensure that the introduction of manor houses and multi dwelling housing (terraces) would not occur in the R2 Low Density Residential zone and would instead be limited to higher density zones.

2.3.6 Planned Precincts - Epping and Macquarie Park Urban Renewal Area

The Epping and Macquarie Park urban renewal area has been identified for opportunities to revitalise key local areas supported by new community facilities, improved public spaces and linking homes and jobs close to transport.

The local areas within Ryde LGA include:

- Macquarie University Station (Herring Road) – planning finalised and development underway
- Macquarie Park – planning underway
- North Ryde Station – planning finalised, development underway.

2.3.6.1 Macquarie University Station (Herring Road)

The Herring Road Urban Activation Precinct is located close to Epping to Chatswood Rail Line, Sydney Metro Northwest and the M2. The precinct includes Macquarie University and Macquarie Shopping Centre and is close to the employment opportunities offered by Macquarie Park.

Planning for Herring Road has been finalised with the rezoning of the area through an amendment to *State Environmental Planning Policy (Major Development) Amendment (Ryde) 2015*. By 2031, the rezoning is expected to provide up to 5,800 new homes, including the redevelopment of Ivanhoe Estate – upgrading 259 existing social housing dwellings into a neighbourhood with approximately 556 social housing dwellings.

2.3.6.2 Macquarie Park

This precinct is employment based and does not propose to include any residential growth.

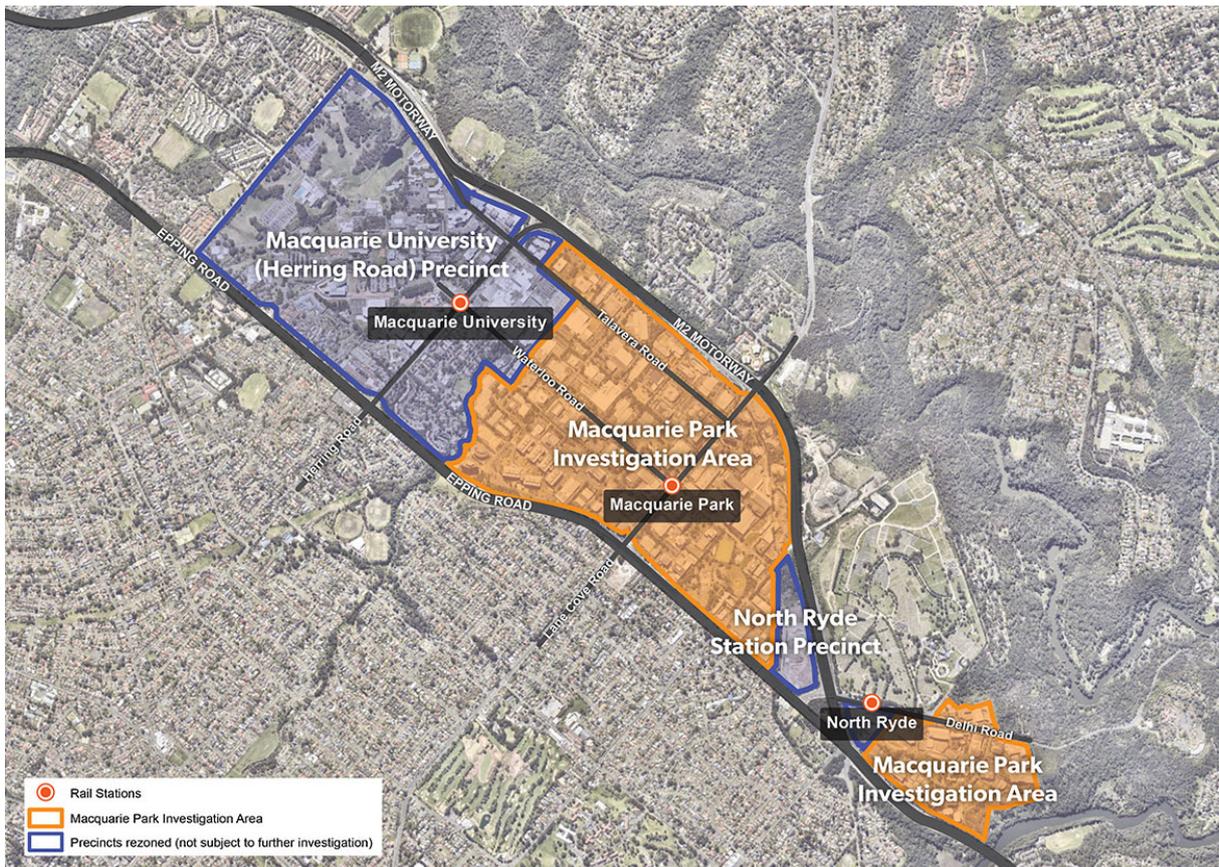
2.3.6.3 North Ryde Station

Approximately 12.5 hectares of land around North Ryde Station has been rezoned for high density residential and mixed uses to enable up to 3,300 new homes within a 10-minute walk of North Ryde Station. The precinct's rezoning comprises some 330,000 m² of floor space for residential, retail and commercial uses. Building heights

will range across the site, with maximums from 33-99 metres. Taller buildings will be located closer to the M2 Motorway to reduce visual and overshadowing impacts.

It is estimated a gross floor area of 330,000 m² of residential and commercial development could be provided across the precinct. The planning for the Precinct has been finalised with amendments made through an amendment to the LEP and a precinct specific Development Control Plan.

Figure 4: Macquarie Park urban renewal area



2.3.7 Ryde Local Environmental Plan 2014

Ryde LEP 2014 is the comprehensive Plan for the Ryde LGA. Ryde LEP 2014 was gazetted in September 2014 and implemented the recommendations of the Local Planning Study of 2010. Ryde LEP 2014 is made in the standard instrument prescribed template and replaced *Ryde Local Environmental Plan 2010* for all but the areas that are identified as deferred under LEP 2014 (Ryde Civic Centre).

Ryde LEP 2014 applies four residential zonings R1 General Residential, R2 Low Density Residential, R3 Medium Density Residential and R4 High Density Residential. Residential development in the form of shop top housing is also permissible in the B1 Neighbourhood and B4 Mixed Use zones. The LEP utilises both height and floor space ratio (FSR) as principle development standards. The LEP sets minimum lot sizes for dual occupancies and multi-unit dwelling housing in the R2 zone.

A summary of the principle development standards and land use zoning by suburb for Ryde LGA is provided in Table 5.

Table 5: Range of residential densities for each suburb of Ryde LGA (including both LEPs)

Suburb where residential development is permissible	FSR	Height	Predominant zoning
Chatswood West	0.5:1	9.5m	R2
Eastwood	0.5:1 – Maximum not set	9.5m – 33.5m	R2, R4, B2, B1, B4
Gladesville	0.5:1 – 4.3:1	9.5m – 33m	R2, R4 & B4
Tennyson Point	0.5:1	9.5m	R2
Denistone East	0.5:1	9.5m	R2 & B1
Denistone West	0.5:1 – 0.8:1	9.5m	R2 & B1
Denistone	0.5:1	9.5m	R2
Macquarie Park	1:1-4.5:1	16m - 120m	B4
Marsfield	0.5:1	9.5m – 11.5m	R2, R4 & B4
Meadowbank	0.5:1 -2.7:1	9.5m – 47.8m	R2, R3, R4, B2
Melrose Park	0.5:1 – 0.8:1	9.5m	R2 & B1
North Ryde	0.5:1 – 3.5:1	9.5m – 92m	R2, R3, B1 & B4
Putney	0.5:1 – 0.8:1	9.5m	R2, B1
West Ryde	0.5:1 – 2:1	9.5m – 33.5m	R2, R4, B4
East Ryde	0.5:1 – 0.8:1	9.5m	R2 & B1
Ryde	0.5:1 – 5:1	9.5m – 105m	R1, R2, R4, & B4

There is a considerable range of permissible densities across the LGA, generally aligned to a hierarchy of density based on the relevant land use zoning with the highest densities provided through the B4 zone. The lower densities are contained within the R2 and B1 zones.

2.3.8 Ryde Development Control Plan 2014

Ryde DCP was adopted and came into effect concurrent with the gazettal of Ryde LEP 2014. The DCP supports the LEP in providing a range of development criteria for residential areas, urban centres and character areas. The DCP is set out by development type for dwelling houses and dual occupancies, multi dwelling housing and boarding houses. For higher density development, the DCP is set out by precinct with a focus on the urban centres where renewal is focused. Special areas also have their own DCP section – these areas have conservation or character attributes. Finally, there are site specific sections which relate to particular redevelopments.

Each precinct has a different format but generally the section provides specified planning principles which establishes the context for the locality and its planning direction, provides an existing and desired future character statement and specifies the relevant objectives, controls and design guidance. Table 6 identifies the precinct specific sections covered by the DCP.

Specific controls relating to housing types (e.g. multi dwelling housing and dual occupancy) are discussed further below.

Table 6: DCP precinct specific sections that relate to residential uses

Urban centres	Special areas	Specific sites
Eastwood Town Centre	Coronation Avenue and Trelawney St, Eastwood character area	Blaxland Road
Shepherd's Bay Meadowbank	Eastwood House Estate Heritage Conservation Area	Pennant Avenue
West Ryde Town Centre	Tyrell Street, Gladesville, Character Area	Second Avenue
Ryde Town Centre Macquarie Park Corridor Gladesville Town Centre and Victoria Road Corridor North Ryde Station Precinct	Blenheim Road Small Centre	Victoria Road, Gladesville

2.3.9 Development contributions

Development contributions are permitted by Section 7.11 (previously Section 94) and 7.12 (previously Section 94A) of the EP&A Act. These sections allow consent authorities (e.g. Council) to collect levies as a condition of development consent in order to fund the provision or improvement of public amenity or services. Council collects fixed development contributions under *Section 94 Development Contribution Plan 2007: Interim Update (2014)* (Development contribution plan). The development contribution plan outlines contributions required to service additional demand associated with new development and a detailed works program.

2.3.10 Ryde Affordable Housing Policy 2016-2031

The *City of Ryde Affordable Housing Policy 2016-2031* establishes programs and projects to address housing affordability for essential key workers in Ryde LGA, it aims to lessen the negative impacts that housing stress is having across the community. The Policy identifies a target of 5 per cent of new dwellings to be built as affordable housing dwellings for key worker households on very low to moderate incomes. The key programs within the implementation plan include:

- Develop an affordable housing calculator to support negotiations with the development industry
- Undertake a demonstration project with a designated percentage of affordable housing (5-10 per cent)
- Create and manage an affordable housing fund that collects mandatory and voluntary financial contributions
- Review planning controls to identify and remove barriers to build or purchase affordable housing
- Assess the appropriate mix of housing choice within Ryde LGA
- Undertake a local housing strategy
- Monitor housing needs associated with changing household sizes
- Include affordable housing aims, objectives and provisions within planning controls
- Advocate for the inclusion of affordable housing on urban renewal sites on government-owned land.

The affordable housing policy also advocates for mandatory inclusions of affordable housing as part of a development that is made possible because of a rezoning. These inclusions would be set at the time of the rezoning to provide certainty for developers and the community. Costs associated with the inclusions could be offset by inclusions, such as density bonuses.

It is noted that a planning proposal to implement mandatory affordable housing inclusions (2 per cent of new stock and 7 per cent of new stock associated with rezonings) has been endorsed by Council and is currently with

DPIE for Gateway assessment. The Gateway assessment commenced in September 2017, with no additional information provided on DPIE's LEP tracking system.

2.4 Implications

The review of the policy context for Ryde LGA has revealed a number of findings that are relevant for this local housing strategy. These are summarised below:

- Dwelling targets need to be set for Ryde for 2021 to 2035 to future how and where dwellings will be accommodated across the LGA.
- Greater housing choice should be investigated to ensure the types of housing provided to meet future dwelling growth suits the current and future demography.
- Planning interventions may be required to encourage seniors living houses to be provided within Ryde LGA as this housing type is not always the use with the most economic gains and so will not be competitive within the housing market.
- Alignment of the strategies of the Ryde Local Housing Strategy with the strategies of Ryde's Affordable Housing Policy.
- A need to identify areas of uplift to enable levying of development for the provision and dedication of affordable rental housing in line with SEPP 70.
- Planning for future housing growth by balancing growth by supporting the natural environment and community-valued suburban character.
- The ability to identify areas with local character that should be supported through a clear desired future character vision and tailoring planning requirements that deliver on this local character vision.
- The need to plan for low rise medium density development within Ryde LGA as part of delivering greater housing choice while also preparing for the 2020 commencement of the Low Rise Medium Density Code of the Codes SEPP.
- Ensuring the growth housing targets for Ryde LGA deliver housing that is aligned to infrastructure and community services and accord with the opportunities and constraints.

STRATEGIC CONTEXT

3.0 STRATEGIC CONTEXT

This section presents a strategic context to inform decisions on the location of future housing. It considers the location of existing infrastructure, environmental constraints, access to jobs, transport and services.

3.1 Location of jobs

Locating jobs closer to homes minimises environmental impacts and reduces commute times and supports positive quality of life outcomes. Of the 2018 estimated resident population of 127,446 people, the National Institute of Economic and Industry Research (NIEIR) estimates that 67,143 residents are employed. In 2017/18, the job to resident ratio for the Ryde LGA was 1.55:1, indicating that there were more jobs in Ryde than workers in Ryde to fill them. The highest ratios were in the following significantly employing industries:

- Information media and telecommunications – 4.89:1
- Wholesale trade – 4.04:1
- Construction – 2.28:1
- Manufacturing – 2.12:1
- Professional, scientific and technical services – 1.5:1.

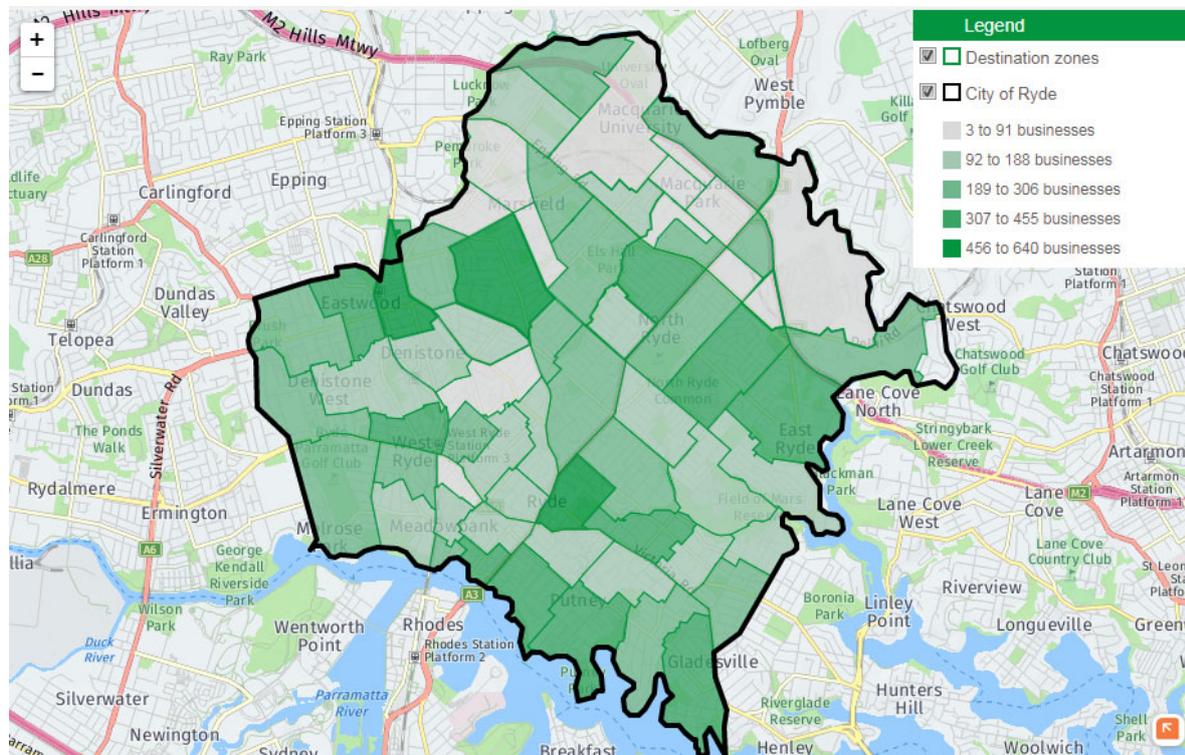
There is significant in-migration and out-migration when it comes to place of employment. In 2016, approximately 28.8 per cent of people employed in the Ryde LGA also lived in the LGA. Approximately 68.1 per cent of Ryde resident workers travel outside of the LGA for work. The following industries had the highest levels of employment self-containment:

- Wholesale trade (40.1 per cent)
- Accommodation and food services (39.3 per cent)
- Retail trade (37.2 per cent)
- Information media and telecommunications (36.7 per cent)
- Education and training (35.9 per cent).

The overlap between the high job to resident ratio and high self-containment industries suggest that workers attempt to work close to home where industries have a high demand for workers.

There are a total of 13,589 active and registered businesses in the Ryde LGA, as at Jun 2019. Figure 5 shows the areas with the highest density of businesses across Ryde.

Figure 5: Location of businesses in Ryde



Source: economy .id

The areas with the highest clusters of jobs were Eastwood, southern Marsfield and Ryde. Notably, clusters of businesses were also identified along the Parramatta River from Meadowbank to Gladesville, areas of high residential use. These are likely associated with sole proprietorships that are registered to home addresses, reflecting the varied nature of employment in the LGA.

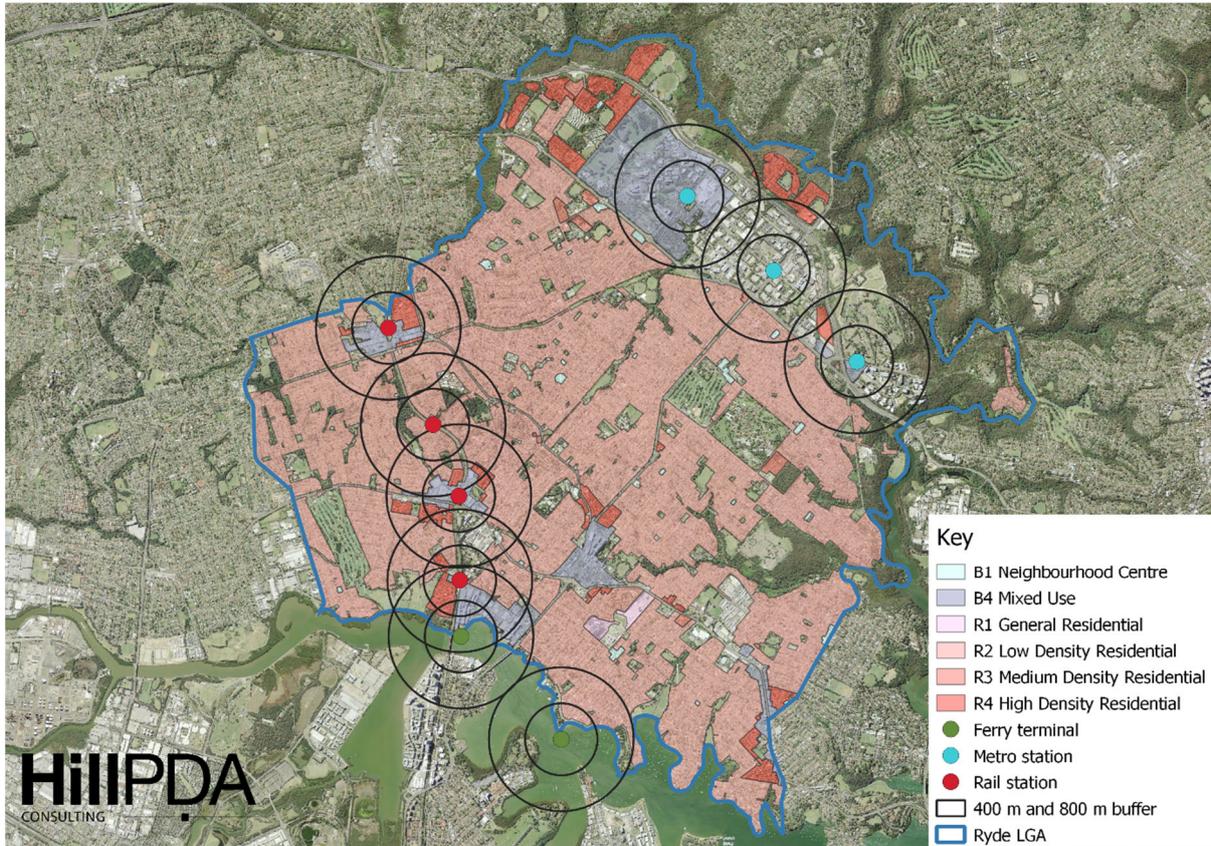
3.2 Access to transport

Local and regional transport in Ryde is discussed in Council’s *Integrated Transport and Land Use Strategy 2016-2031* (Transport Strategy). The Transport Strategy examines the existing transport networks and short to long term population growth trends in the LGA.

Ryde LGA encompasses the intersection of two rail corridors, being the T9 Northern Line (connecting to Hornsby, Epping Strathfield and the CBD) and the M-Metro North West Line (connecting to Chatswood, Epping, Castle Hill and Norwest). The Central Coast and Newcastle Line stops at Epping, accessible by both T9 and Metro stops within Ryde. Stations located in these rail corridors provide excellent access to jobs and services.

Ryde LGA incorporates the intersection of multiple State-controlled roads such as Victoria Road, Epping Road and Lane Cove Road. The Ryde LGA is a significant destination with a high proportion of journey to work trips ending within Ryde LGA, these roads also carry substantial through traffic to other destinations.

Figure 6: Theoretical train and ferry walking catchments



Active transport includes formal and informal cycle routes across the LGA. The Transport Strategy notes that the active transport network contains missing links, limiting its effectiveness. Council has indicated a priority is to invest in active and public transport options at major employment or mixed use development areas in Ryde LGA to encourage uptake of walking and cycling as alternatives to private vehicle use.

3.3 Access to social infrastructure

3.3.1 Health

Major public hospitals servicing the LGA are Royal North Shore Hospital in St Leonards (5 km to the east) and Westmead Hospital (9 km to the west). Ryde Hospital, together with Royal North Shore Hospital, forms the North Shore Ryde Health Service servicing the LGAs of Mosman, North Sydney, Willoughby, Lane Cove, Ryde and Hunters Hill. Acute services at Ryde Hospital include emergency, elective surgery, day surgery, maternity, orthopaedics, cardiac and intensive care. Non-acute inpatient services include aged care and rehabilitation, drug and alcohol and mental health. Ryde Hospital’s community health services include dental, aged care, rehabilitation, diabetes, child, adolescent and family health, mental health, drug and alcohol and health promotion.

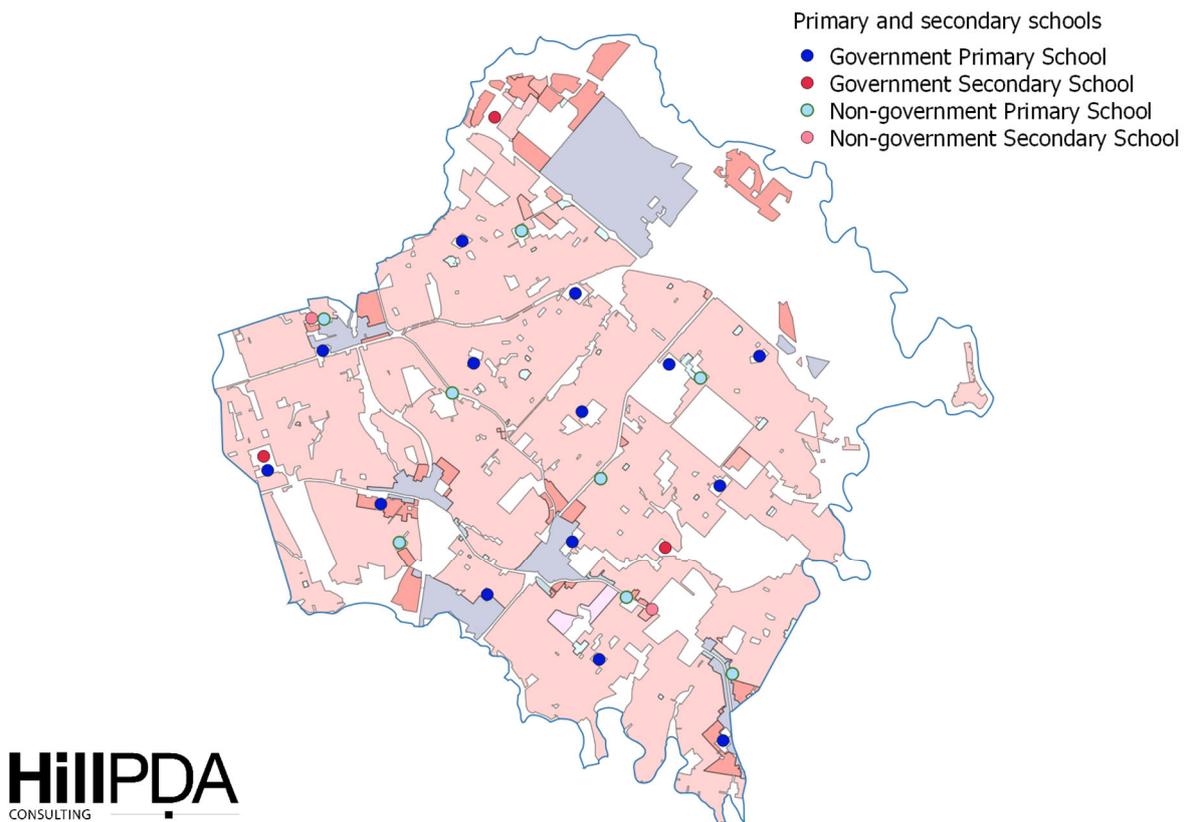
Ryde LGA is also serviced by Macquarie Hospital in North Ryde, a 195-bed specialised mental health residential facility including, Coral Tree Family Centre, a child-focused tertiary referral service. The Royal Rehabilitation Hospital in Putney, is a mixed public and private rehabilitation and disability support hospital, providing in patient and community services.

Planned growth outlined in *NSLHD Strategic Plan 2017-2022*, focusing on the opening of the hospital at Frenchs Forest and redevelopment associated with Royal North Shore Hospital and Hornsby Hospital. While the strategy does not highlight further upgrades, the NSW Government recently announced \$479 million in funding for upgrades to Ryde Hospital in the future.

3.3.2 Education

The distribution of schools is shown in Figure 7. There are 19 public schools within Ryde LGA, including 14 primary schools, three secondary schools, one environmental education centre, and one specific needs school. There are also 11 non-government schools within Ryde LGA, including eight primary schools and two secondary schools. While school capacity figures are not available, schools themselves are generally evenly distributed across the residential areas of the LGA, with primary schools approximately 1 km apart, and at least one primary school within or adjacent to each town centre.

Figure 7: Distribution of schools in Ryde



Between 2010 and 2018, public school enrolments in the LGA increased from 6,777 to 10,954, an increase of 4,177 students, or 61.6 per cent. This represents an annual growth rate of approximately 6.2 per cent.

The NSW Government has announced the construction of new schools or upgrades to existing schools, which include:

- Smalls Road Primary School is currently under construction at the site of the former Ryde High School. When complete, it will provide capacity for a further 1,000 students
- Meadowbank Education Precinct, which will combine the relocated Meadowbank Public School and Marsden High School, potentially increasing capacity by 1,300 total students
- Kent Road Public School upgrades allowing for an additional 150 students
- Macquarie Park Education Precinct, which is in early planning stages.

Given the expectation for continued population growth and the with the trend for families to live in apartments (see Section 5.4), Council should maintain open communications with NSW Department of Education to ensure education infrastructure continues to develop and meet the needs of Ryde residents.

3.3.3 Open space

Open space planning in Ryde LGA is outlined in Council’s *Integrated Open Space Plan (2012)* and *Children’s Play Implementation Plan (2013)*. These documents provide the latest available inventory of open space distribution and capacity across Ryde, including a consideration of catchments and potential improvements.

Figure 8: Playground walking catchments

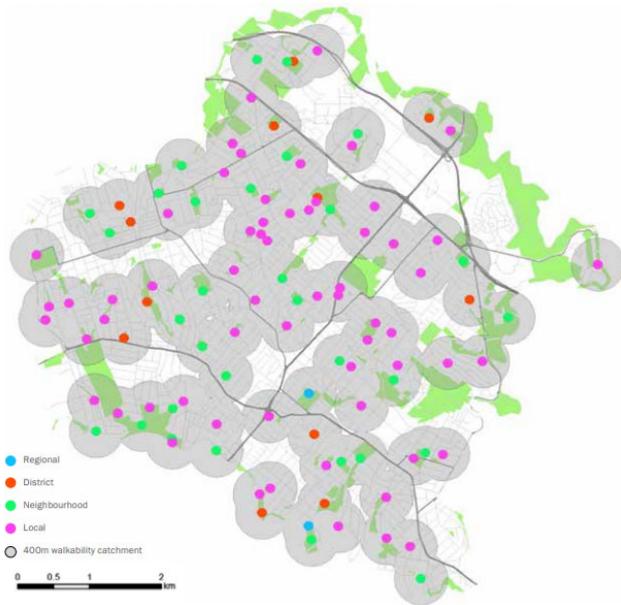


Figure 9: Open space in Ryde

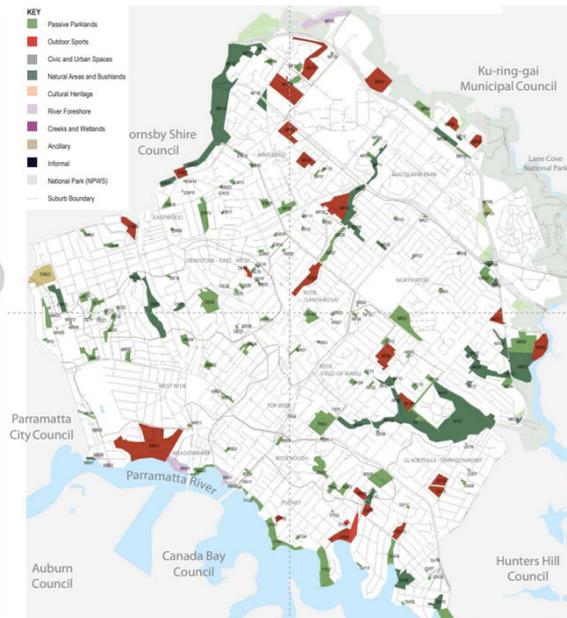


Figure 10: Distance to open space

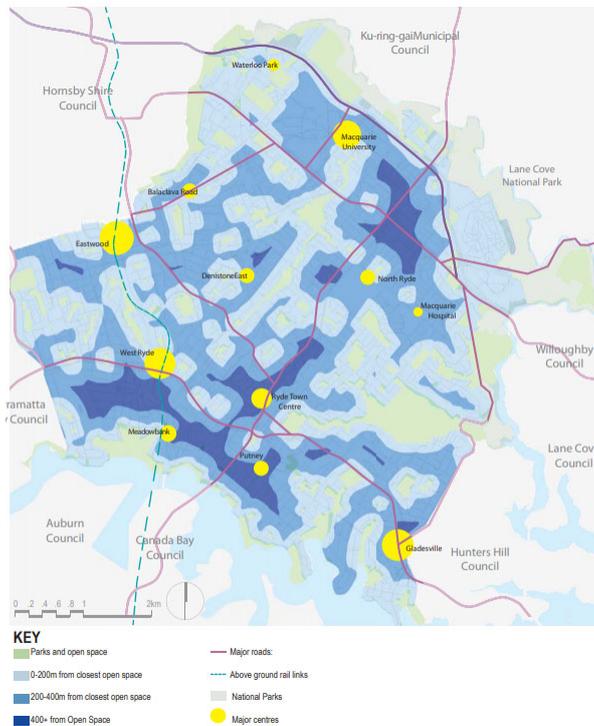


Figure 8 is an extract from the *Children’s Play Implementation Plan* showing the location and type of playgrounds across the LGA, while Figure 9 and Figure 10 are extracts from the *Integrated Open Space Plan* showing the location of open space across Ryde and the distance from open space.

The reports indicate that open space and playgrounds across Ryde LGA generally meet the needs of the population as a whole, but the distribution and embellishment of open space is inconsistent across the LGA. However, there have been substantial open space upgrades since that time. The reports recommend further embellishment of and access to existing open space to more effectively cater for the needs of current and future residents.

3.4 Heritage protection

Protection of heritage is paramount as it is integral to the culture and character Ryde LGA. As an area of varying topography adjacent to the Parramatta River, Ryde LGA has opportunities natural and ecological heritage, aboriginal heritage, historic buildings and buried relics.

Local heritage in Ryde LGA is primarily identified in Ryde LEP 2014 Schedule 5. The heritage items and conservation areas are generally isolated, with smaller clusters along and south of Victoria Road and west of the T9 rail line in Denistone and Denistone West. Ryde LGA's DCP lists four 'special areas,' which consist of character areas. These include:

- Coronation Avenue and Trelawney Street, Eastwood Character Area
- Eastwood House Estate Heritage Conservation Area
- Tyrell Street, Gladesville Character Area
- Blenheim Road small Centre (Blenheim and Cox's Road, North Ryde).

A comprehensive heritage review of the Ryde LGA has recently been completed by Council to identify built, landscape and archaeological items of heritage significance for inclusion in Ryde LEP 2014 Schedule 5. Council has prepared and endorsed a planning proposal to incorporate the findings of the Heritage Review into Ryde LEP 2014 and includes the following proposed addition:

- 24 new heritage items
- 3 new heritage conservation areas
- 2 new archaeological sites.

The proposed heritage conservation areas include:

- Chatham Road, Denistone
- Darvall Estate, Denistone
- Tyrell Street, Gladesville

The planning proposal has undergone DPIE Gateway assessment, with a Gateway determination issued in early August 2019. As per the Gateway determination, Council is to consult with the community, landowners, and relevant State Government departments prior to further consideration of the planning proposal. Public consultation is currently ongoing, expected to complete in late October.

3.5 Environmental and natural constraints

Ryde LGA contains significant natural features with Lane Cove National Park forming the northern and eastern boundaries and Parramatta River forming the southern boundary of the Council. These offer substantial environmental amenity to Council's residents, with important biodiversity values.

Biodiversity in Ryde is discussed in *Ryde Biodiversity Plan* (Eco Logical Australia, 2016) which reports that Lane Cove National Park and Parramatta River contain several endangered ecological communities and threatened flora and fauna that are sensitive to the effects of development. In particular, development along the edges of reserves, artificial lighting, and stormwater runoff can negatively affect environmental assets in Ryde.

The Ryde Council - Bush Fire Prone Land Map was last reviewed in 2018. The bulk of bush fire prone land in Ryde LGA surrounds Lane Cove National Park, extending around Buffalo Creek, Field of Mars Cemetery and Ryde

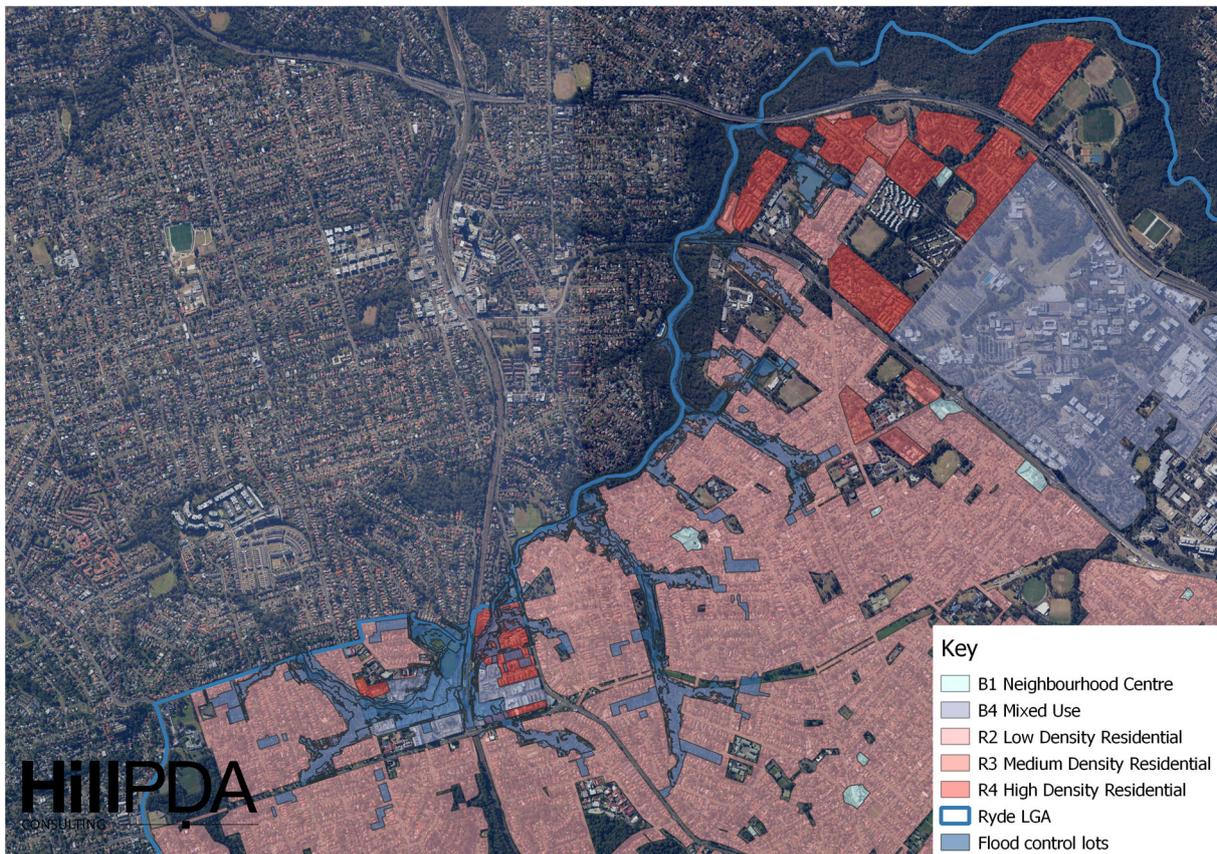
Secondary College. Smaller pockets of lower risk bush fire prone land are also found to the north of Denistone Station and around Brush Farm Park in western Ryde.

Flood planning levels and flood control lots are identified on Ryde LEP 2014’s Flood Planning Map, with additional information regarding flood levels in flood studies/risk management plans associated with the following catchments:

- Eastwood and Terrys Creek
- Macquarie Park
- Buffalo and Kittys Creek
- Parramatta River Ryde Sub Catchments.

The Flood Planning Map primarily identifies land around Eastwood and northwest Marsfield as below flood planning levels.

Figure 11: Extract of Ryde LEP 2014 flood planning level



Ryde LEP 2014 also identifies other land at or below the flood planning level (i.e. below the 1:100 average recurrent interval flood event plus 0.5 metre freeboard). While flood studies associated with the above catchments may not be included on the Flood Planning Map, relevant flood controls would still apply to lands identified in the flood studies. Further, it is understood that planning certificates issued by Council reference areas of potential flooding, as shown by the studies.

3.6 Summary

Issue area	Opportunity	Constraint
Town centres	<ul style="list-style-type: none"> Well provisioned with local services Good access to transit corridors and public transport 	<ul style="list-style-type: none"> Low-rise developed is highly fragmented Transport corridors can isolate/bisect areas
Low density residential areas	<ul style="list-style-type: none"> Diversity of housing types permissible, increasing supply Background growth occurs with minor variation to local character 	<ul style="list-style-type: none"> Smaller medium-density housing types have mixed design outcomes Inconsistent access to supporting infrastructure
Economics	<ul style="list-style-type: none"> Abundance of jobs within the LGA, compared to the population 	<ul style="list-style-type: none"> Jobs are specialised in certain industries, with limited benefits to containment
Transport infrastructure	<ul style="list-style-type: none"> Well serviced by north-south and east-west train lines Bus interchanges allow for mode-split Classified roads provide good regional connectivity 	<ul style="list-style-type: none"> Local-service bus network requires optimisation in low-density areas Transport corridors inhibit pedestrian movement Active transport network contains gaps
Social infrastructure	<ul style="list-style-type: none"> Schools, hospitals and Council infrastructure is well distributed Recent investment in social infrastructure has increased capacity and service levels 	<ul style="list-style-type: none"> Significant increases in public school enrolment will require sustained State investment Parks and playgrounds require embellishment and consolidation to meet the needs of the population
Heritage	<ul style="list-style-type: none"> Heritage controls preserve valuable aspects of local character Integration of heritage into new developments provides opportunities for unique and locally relevant design 	<ul style="list-style-type: none"> Heritage controls can restrict the ability to provide additional housing in proximity to supporting infrastructure
Environment	<ul style="list-style-type: none"> Major environmental features (e.g. Lane Cove National Park and the Parramatta River) provide substantial amenity and recreation benefits Smaller, distributed reserves provide local amenity and character alternatives to urbanised areas 	<ul style="list-style-type: none"> Varied topography can reduce feasibility of medium density development Flood and bushfire prone areas require specialist design solutions to minimise hazards to population and property.

DEMOGRAPHIC OVERVIEW

4.0 DEMOGRAPHIC OVERVIEW

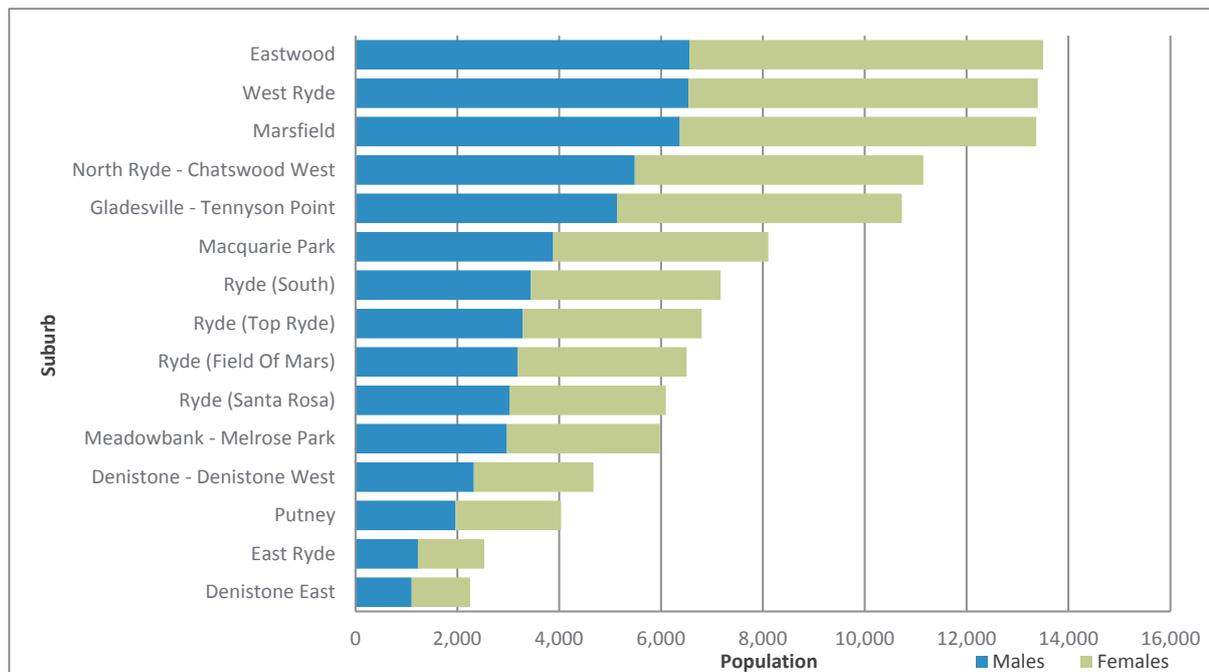
The section describes the population, household characteristics for the Ryde LGA. It describes these characteristics in the context of the 2016 Census, and 2006 and 2011 census periods as relevant.

4.1 Population

The Ryde LGA has a total population of 127,446³. The LGA has population density of 31.48 persons per hectare, compared to the Sydney North and Hornsby SA4 density of around 15 persons per hectare and NSROC area with a density of 10.08 persons per hectare. This variation in density is likely due to a combination of factors, particularly the amount of developed vs undeveloped (e.g. National Parks) land.

Figure 12 shows the distribution of population by suburb and gender based on Census 2016 data. Eastwood (13,511 people), West Ryde (13,410 people) and Marsfield (13,330 people) have the highest population numbers of the suburbs in the Ryde LGA, highly correlating to the relative geographic size of the suburb.

Figure 12: Ryde suburbs and population, 2016

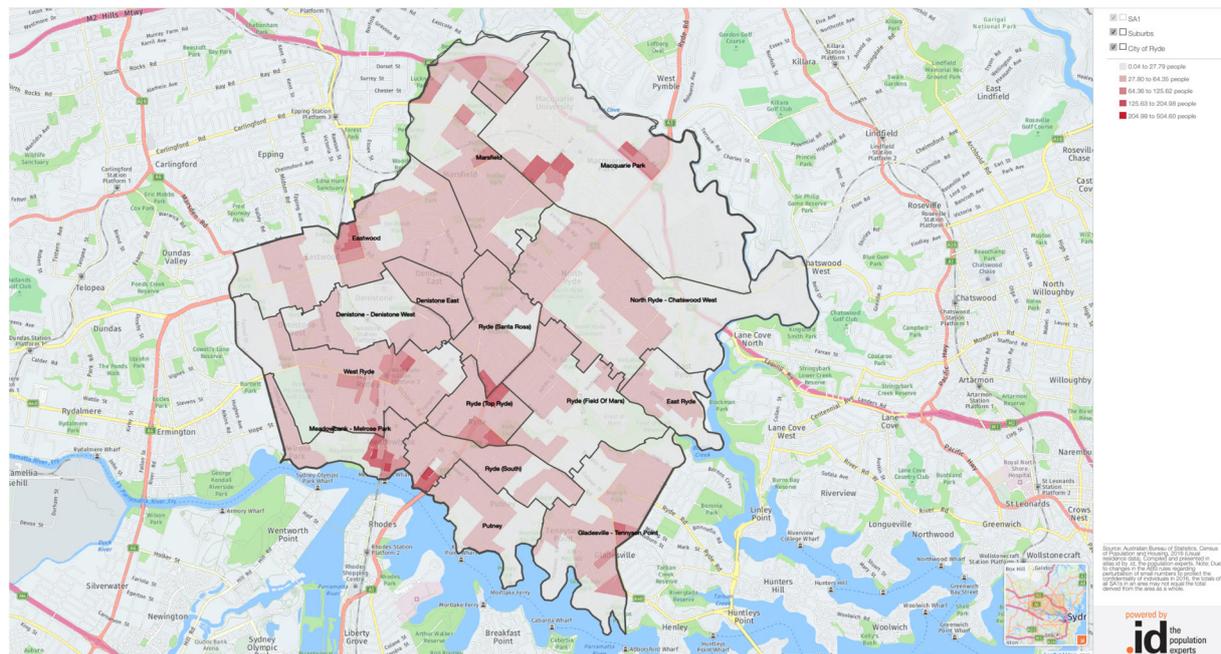


Source: ABS 2016

Figure 13 provides a map of population density across Ryde LGA. The map illustrates the highest densities do not necessarily correlate with the highest suburb populations, but rather show the highest densities tend to be around commercial centres and public transport nodes. Ryde (Top Ryde) was the suburb with the highest population density, with a high score of 62.75 persons per hectare, followed by Meadowbank/Melrose Park and Ryde (South) with 48.81 and 45.09 persons per hectare respectively.

³ ABS Estimated Resident Population, 2018

Figure 13: Map of Population Density by Suburb, 2016.



Source .id the population experts

4.2 Population Growth

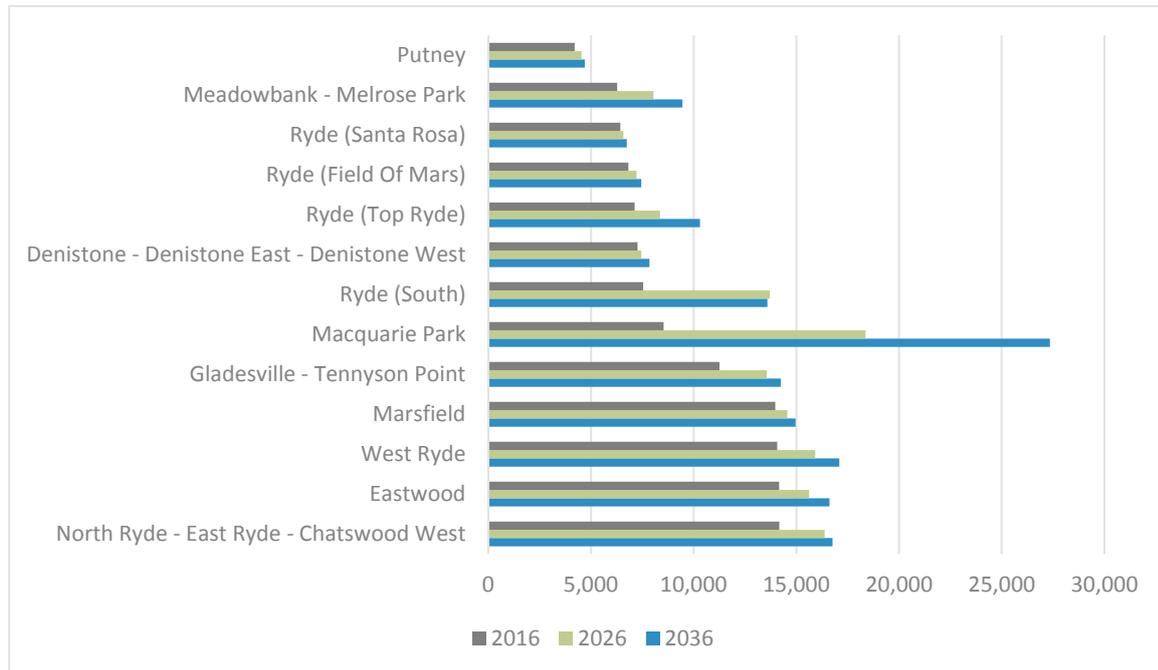
The population of Ryde City has been growing at a rate of 2.0 per cent per annum between 2006-2016, which is higher than Greater Sydney of 1.7 per cent⁴. In 2017, .id – the Population Experts forecasted that the annual population growth rate is expected to increase to 2.64 per cent (2016-2021) and then steadily decrease to 0.98 per cent to (2031-36)⁵. In terms of total population forecasts, the LGA is forecasted to have 150,294 persons in 2026, 159,191 in 2031 and 167,109 in 2036.

The forecasted change in population between 2016, 2026 and 2036 across suburbs in the LGA, as determined by forecast .id, are shown in Figure 14. There is population growth expected across the suburbs with Macquarie Park expecting significant growth averaging 11.0 per cent per year over the 20-year period, and Ryde South expecting an average of 4.0 per cent per year (although most of this growth is expected between 2016 and 2026). Meadowbank and Top Ryde also experienced high average growth rates. Santa Rosa, Denistone area and Field of Mars are all expected to have stable populations.

⁴ .id (the population experts), 2019, based on ABS Census data.

⁵ profile .id.

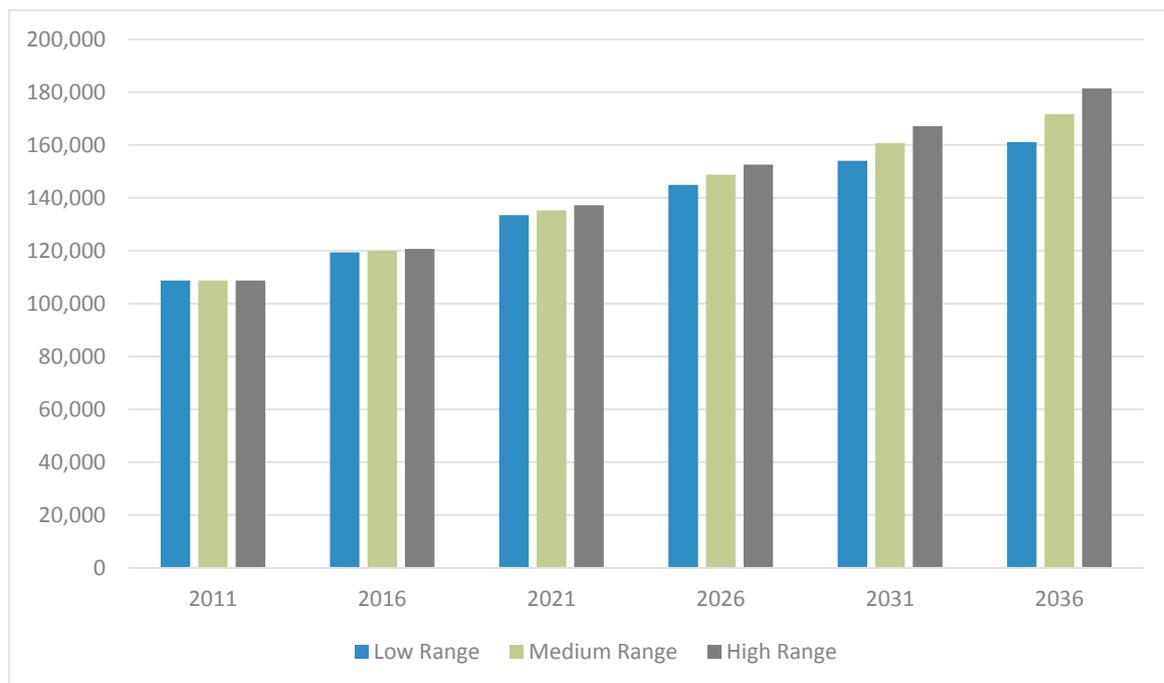
Figure 14: Forecasted Population of Ryde City Suburbs: 2016, 2026, 2036.



Source: forecast .id

Analysis has also been undertaken by DPIE, with low, medium and high population ranges for the entire Ryde LGA. It is noted that DPIE projections are based on 2011 Census data and population trends from 1991 to 2011. While the forecast is limited in this regard, it provides a useful secondary baseline, with ranges broadly consistent with forecast .id predictions.

Figure 15: Forecasted Population of Ryde LGA: 2011 to 2036.

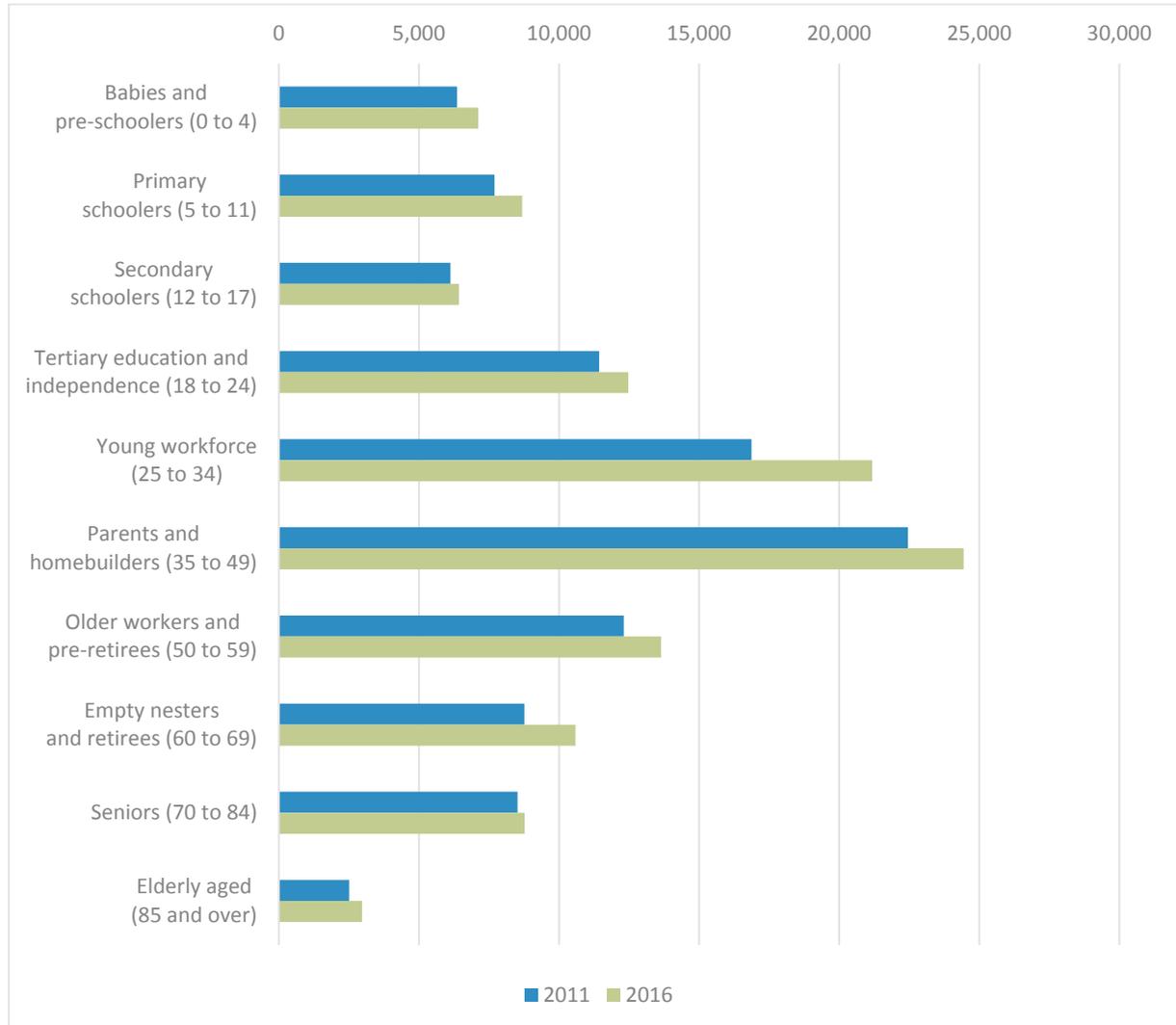


Source: Department of Planning, Industry and Environment

4.3 Age Structure

Ryde LGA has a median age of 36 years old, matching the Greater Sydney median. Ryde LGA’s population profile shows there are lower proportions of children, particularly the 5-17 years age group, than Greater Sydney. There are significantly higher proportions of young workforce aged people (25 to 34 years) and those aged 18-24 years.

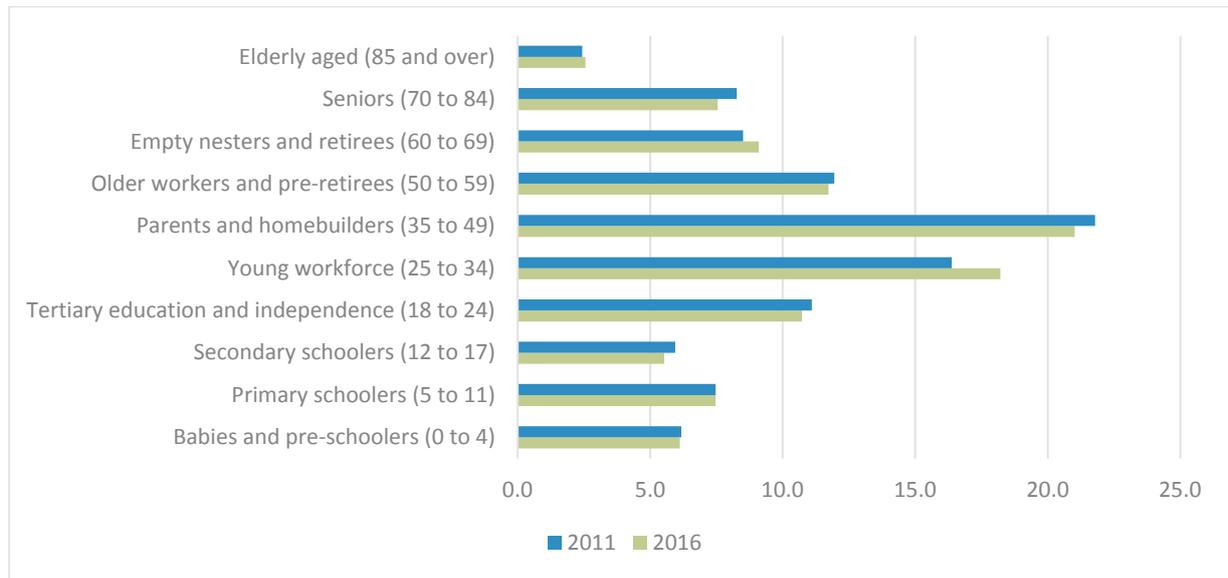
Figure 16: Comparison age distribution – Ryde City 2011 and 2016



Source: Census 2016

Examining the relative proportion of age groups, there has been a reduction in the proportion of families with children between the 2011 and 2016 Census periods. The graph below shows there was a notable reduction in the proportion of individuals aged 35-59 years, as well as children aged under 18 years. Conversely, there was a significant increase in the proportion of people aged 25-34 years, and a smaller increase of empty nesters (60-69 years). Interestingly, there was also a small increase in the 85+ year age group. These increases may be associated with additional housing that would have been available following the introduction of the Seniors Housing SEPP.

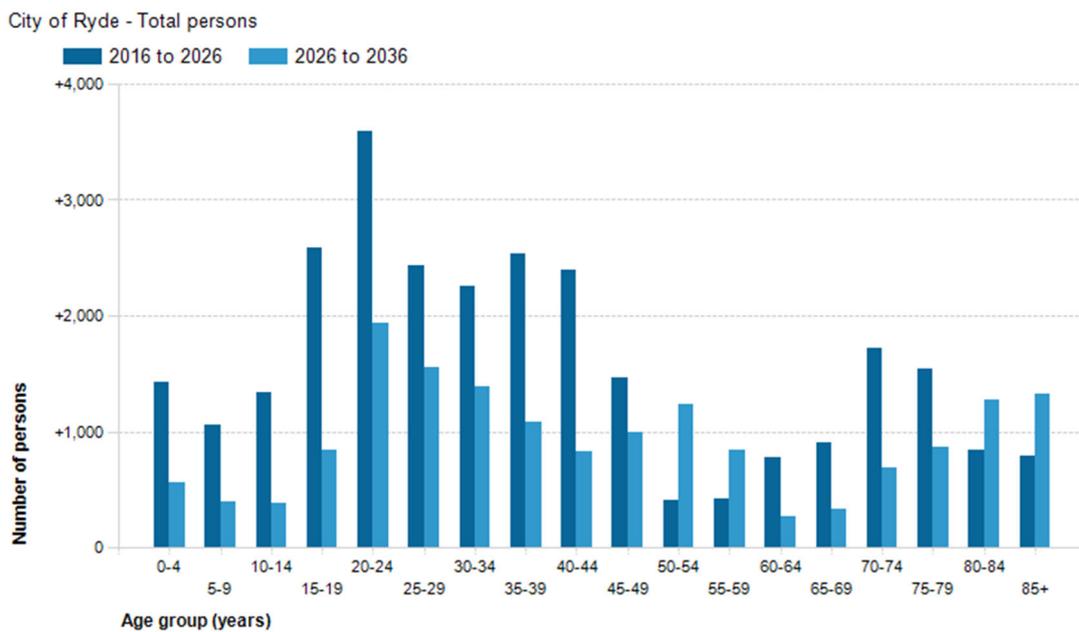
Figure 17: Change in proportion of population age groups Ryde City, 2011-2016



Source: .id the population experts, Ryde Community Profile

Population forecasts indicate a continuation of these trends, as a result of increased high-density development at Macquarie Park and North Ryde station precinct attracting students, young professionals, and first home buyers. Whilst the biggest growth in numbers will be the 20-24 years age group (+5,526 persons), average annual relative growth rates are highest in the 70+ year age groups over the period 2011 to 2036.⁶

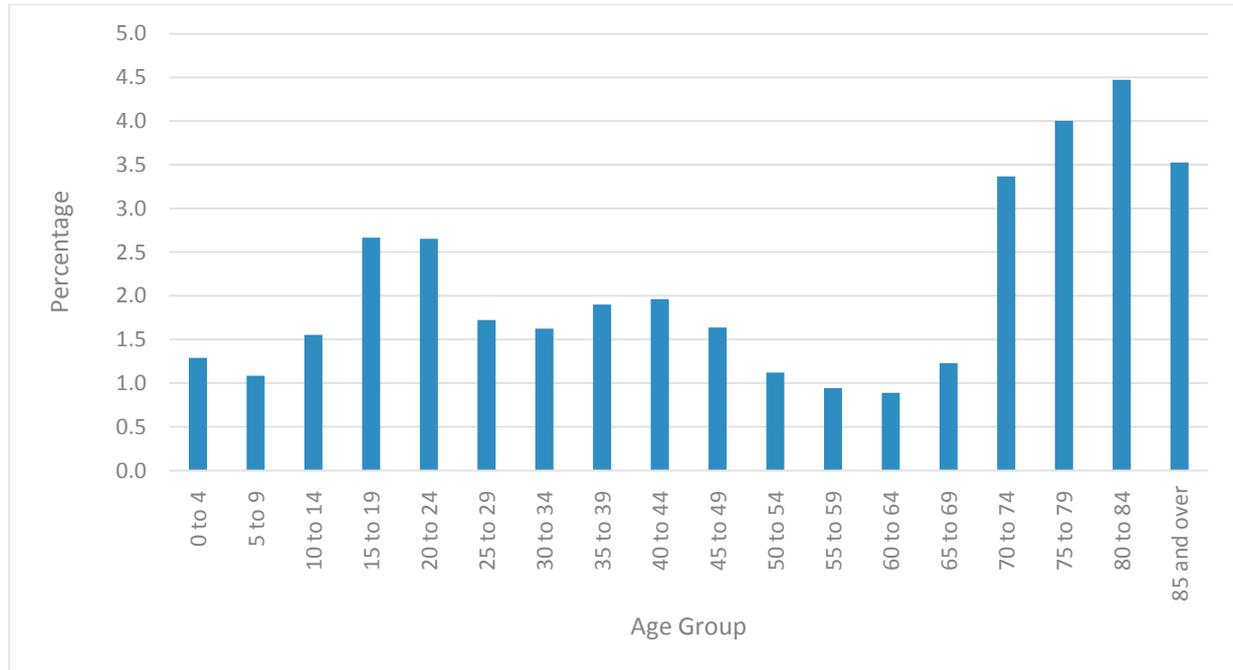
Figure 18: Change in population (Total Persons) by age group, 2016-2026 and 2026-2036



Source: profile .id

⁶ profile .id

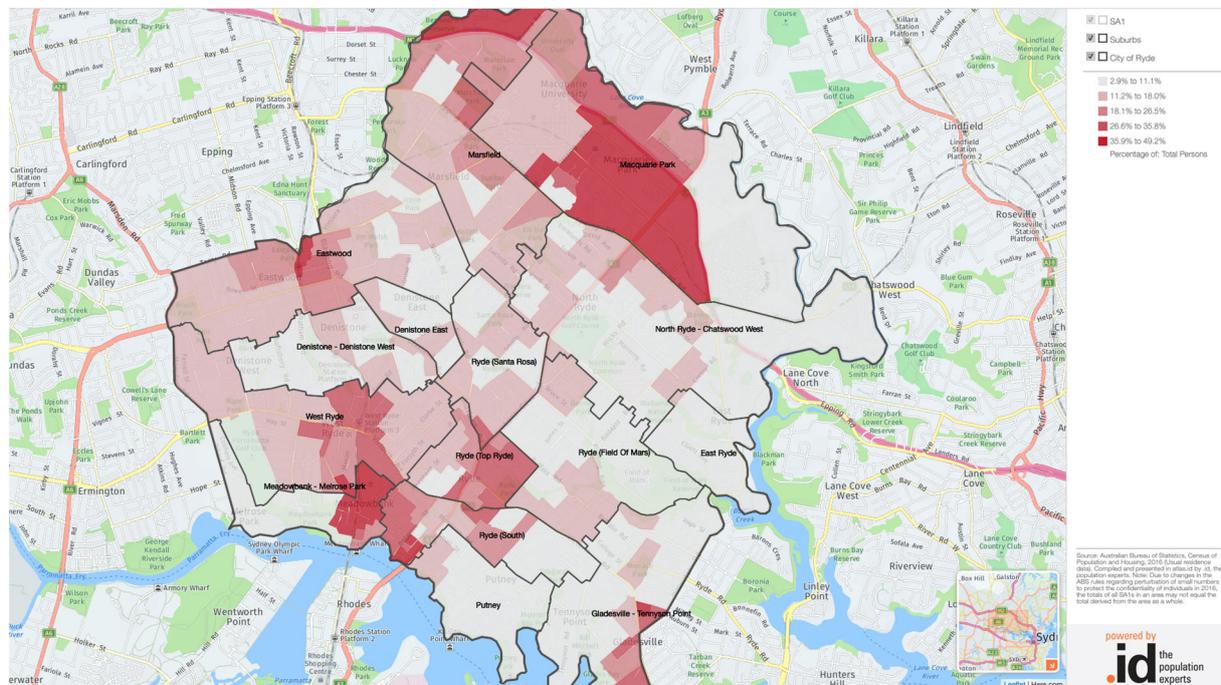
Figure 19: Average Annual Forecasted Population Change (%) by age group, 2016-2036



Source: profile .id

When examining the distribution of individuals aged 25-34 years across the City as seen in Figure 20 below, they are more likely to be living in residential development areas where retail and commercial centres are present, as well as public transport.

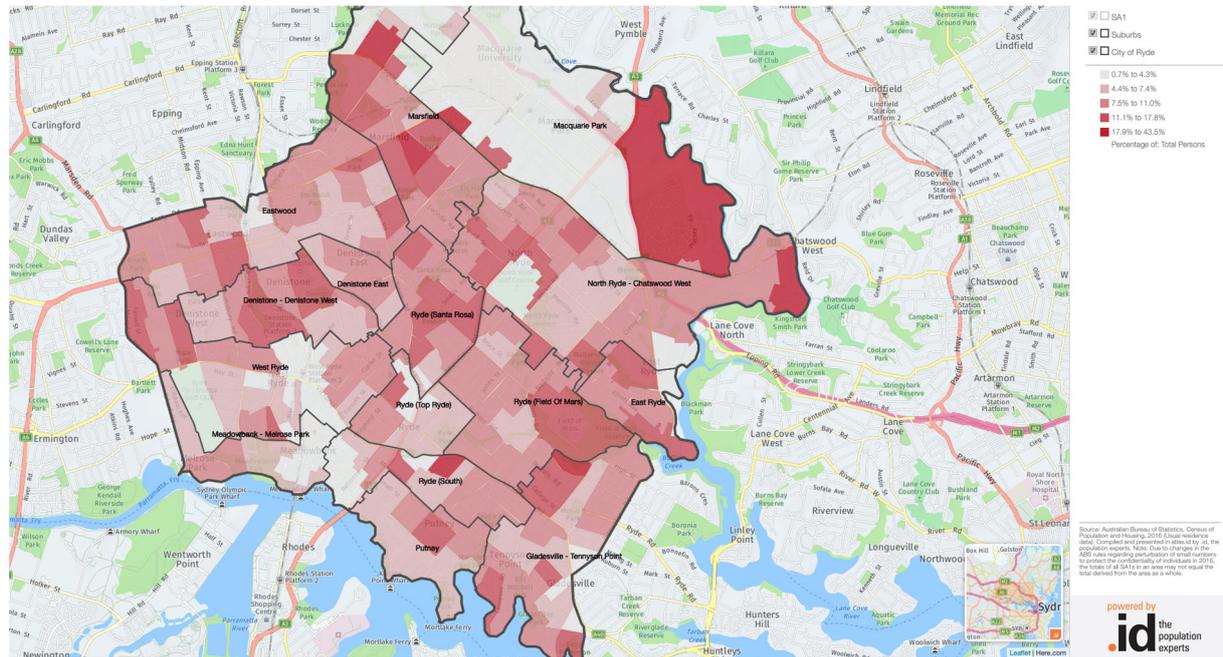
Figure 20: Map – proportion of residents aged 25-34 years 2016



Source: profile .id

Seniors aged 70-84 years appear to be concentrated in areas where the 25-34 year age group are not: in lower density areas away from commercial centres.

Figure 21: Map – proportion of residents aged 70-84 years 2016

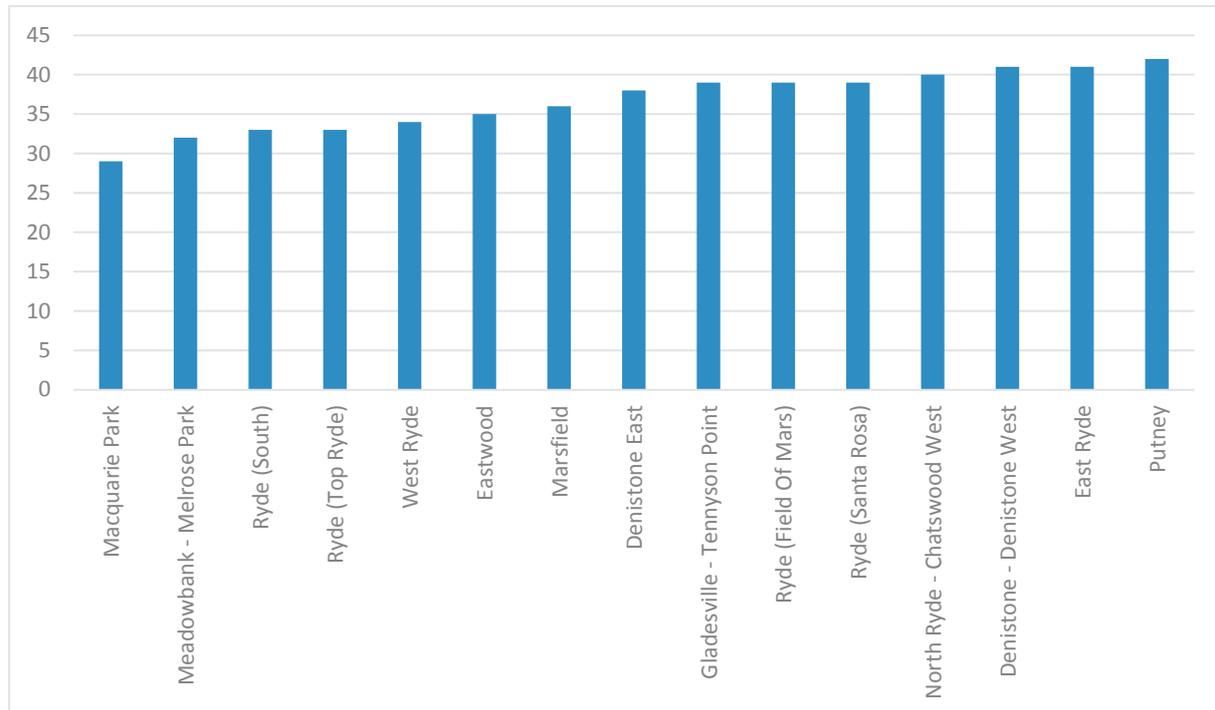


Source: profile .id

A suburb by suburb breakdown of age distribution is presented in Figure 21. Macquarie Park and Meadowbank have the highest proportion of 25-34 years group, with 30.9 per cent and 29.9 per cent respectively. Younger families (35-49 years and 0-11 years) are relatively evenly spread across the LGA, except for Macquarie Park where there are significantly less (3.5 per cent primary aged children compared with 7.5 per cent across the LGA). There are higher proportions of empty nesters in Denistone (12.2 per cent) and Putney (11.6 per cent), and higher proportions of seniors in East Ryde (10.7 per cent) and Ryde (Santa Rosa) (10.2 per cent).

The suburbs with the youngest median age are similar to those with high proportions of tertiary and young workforce aged people – Macquarie Park and Meadowbank/Melrose Park having the youngest median age at 29 and 32 years respectively. These areas have high proportions of smaller dwellings, and Macquarie University in Macquarie Park contributes to the low median age. Putney and East Ryde have the oldest median age at 42 and 41 years respectively.

Figure 22: Median Age across Ryde LGA Suburbs - 2016



Source: ABS 2016

4.4 Indigenous population

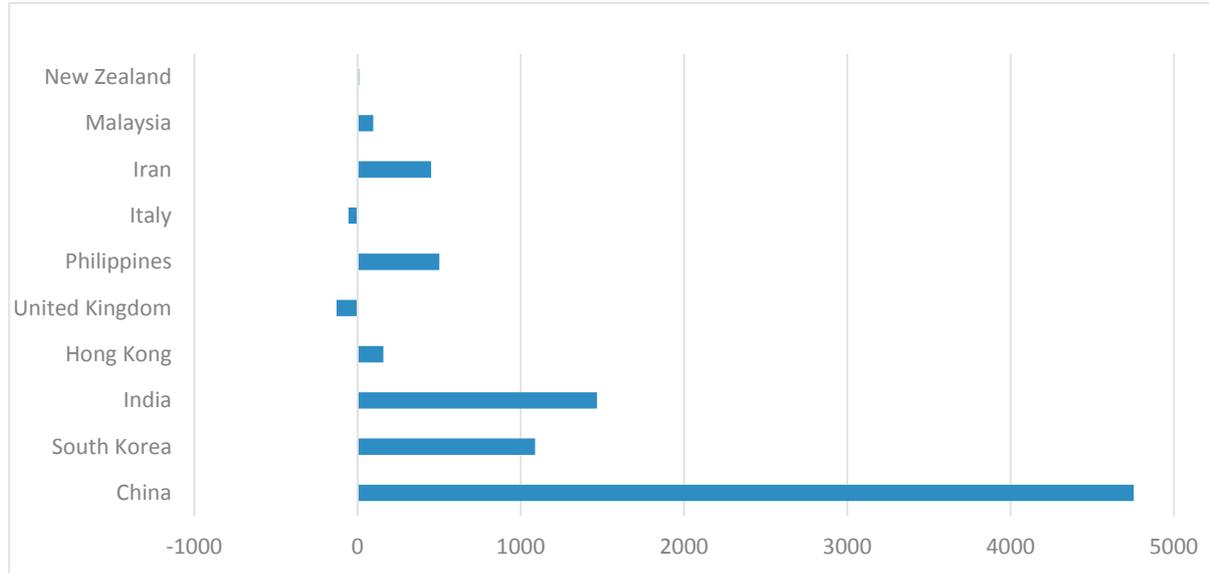
As of 2016, the indigenous population of Ryde was 430, with 392 people identifying as Aboriginal, 25 as Torres Strait Islander, and 12 as both Aboriginal and Torres Strait Islander. This is about 0.4 per cent of the Ryde population. less than the Greater Sydney indigenous population of 1.4 per cent.

4.5 Place of birth

A total of 54,552 people, or 46.9 per cent of people in Ryde, were born overseas at the 2016 Census. This is higher than that of Greater Sydney which was 36.7 per cent. The most numerous overseas birthplaces for Ryde residents were China (14,547, 12.5 per cent), South Korea (4,545, 3.9 per cent) and India (4,128, 3.5 per cent).

The proportion of overseas born persons has increased from the 2011 Census rate of 42.2 per cent. Figure 23 illustrates there has been a significant increase in the number of people from China, India and South Korea.

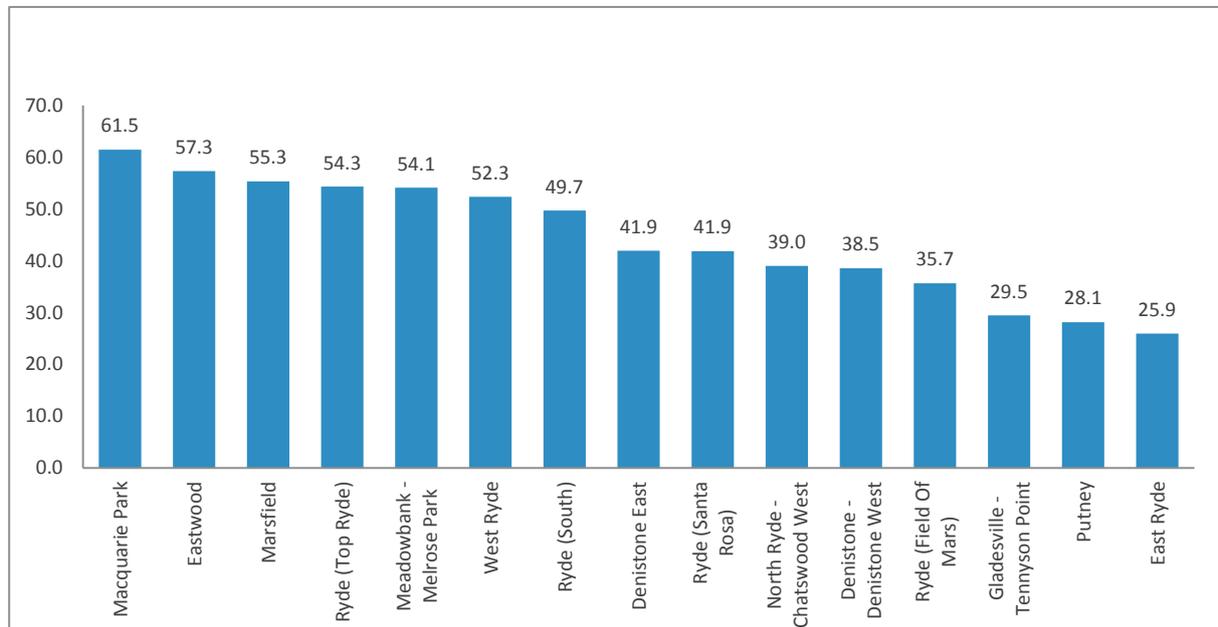
Figure 23: Change in Birthplace, 2011 to 2016



Source: profile .id

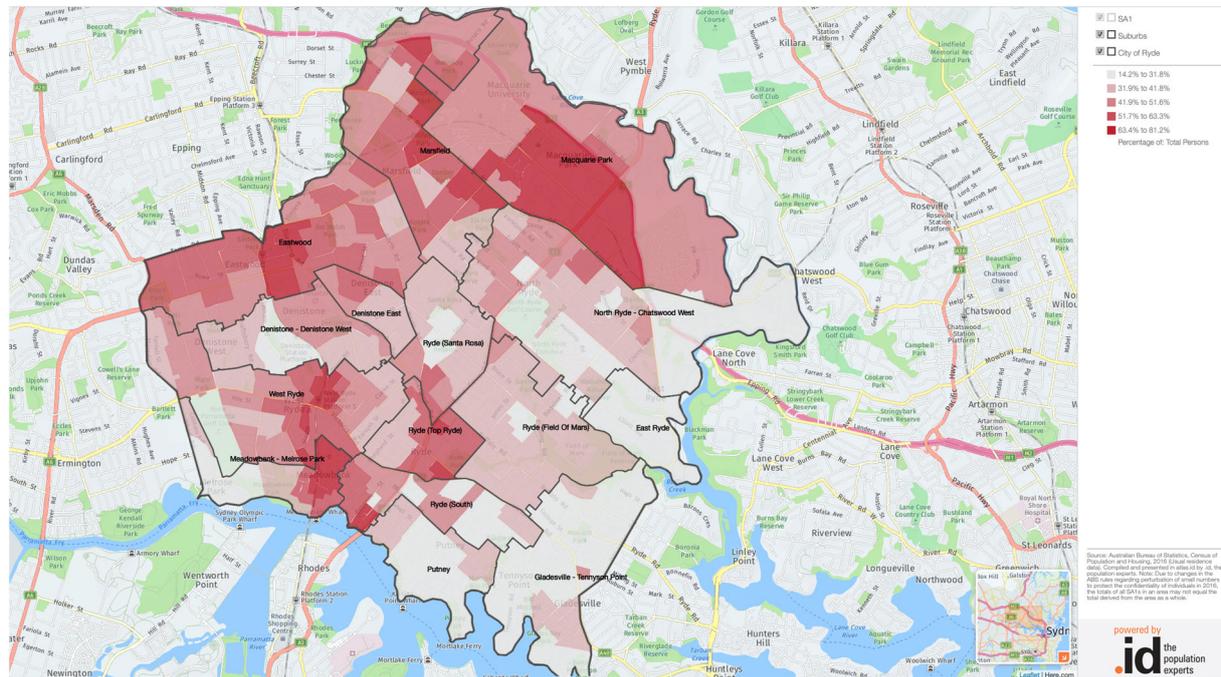
Figure 24 and Figure 25 indicate the proportion of people born overseas by suburb. High proportions of overseas born people reside in and around the larger commercial centres, although the highest proportion by suburb is at Macquarie Park.

Figure 24: Proportion of people born overseas by Suburb, 2016



Source: ABS 2016

Figure 25: Proportion of people born overseas by Suburb, 2016



Source: profile .id

4.6 Culturally and linguistically diverse population (CALD)

As of 2016, there were approximately 55,900 non-English speakers living in Ryde, of which about 9,900 reported difficulty speaking English. This amounts to about 48.0 per cent of the Ryde population being non-English speakers (with the subset of 8.5 per cent having difficulty speaking English). This is higher than the Greater Sydney average of 35.8 per cent and 6.5 per cent, respectively.

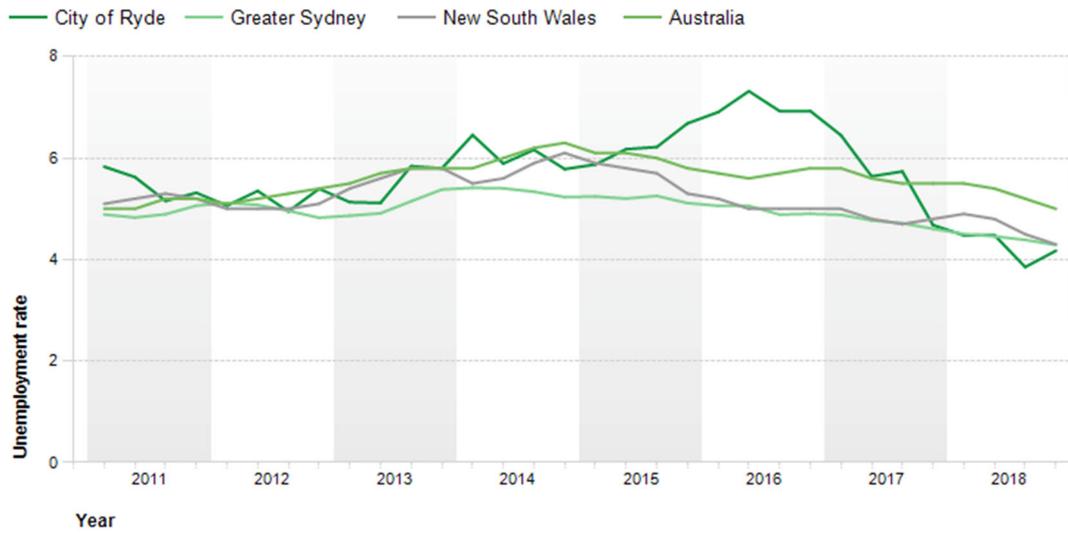
When considering place of birth, a total of 54,552 people, or 46.9 per cent of people in Ryde, were born overseas, higher than that of the Greater Sydney population of 36.7 per cent.

4.7 Employment

Unemployment in Ryde LGA was 4.2 per cent in December 2018, which was similar to that of Greater Sydney at 4.3 per cent⁷. Figure 26 illustrates that there was a significant increase in the unemployment rate between June 2015 and June 2016, although there has been a steady reduction since then.

⁷ Department of Jobs and Small Business, *Small Area Labour Markets*, December 2018

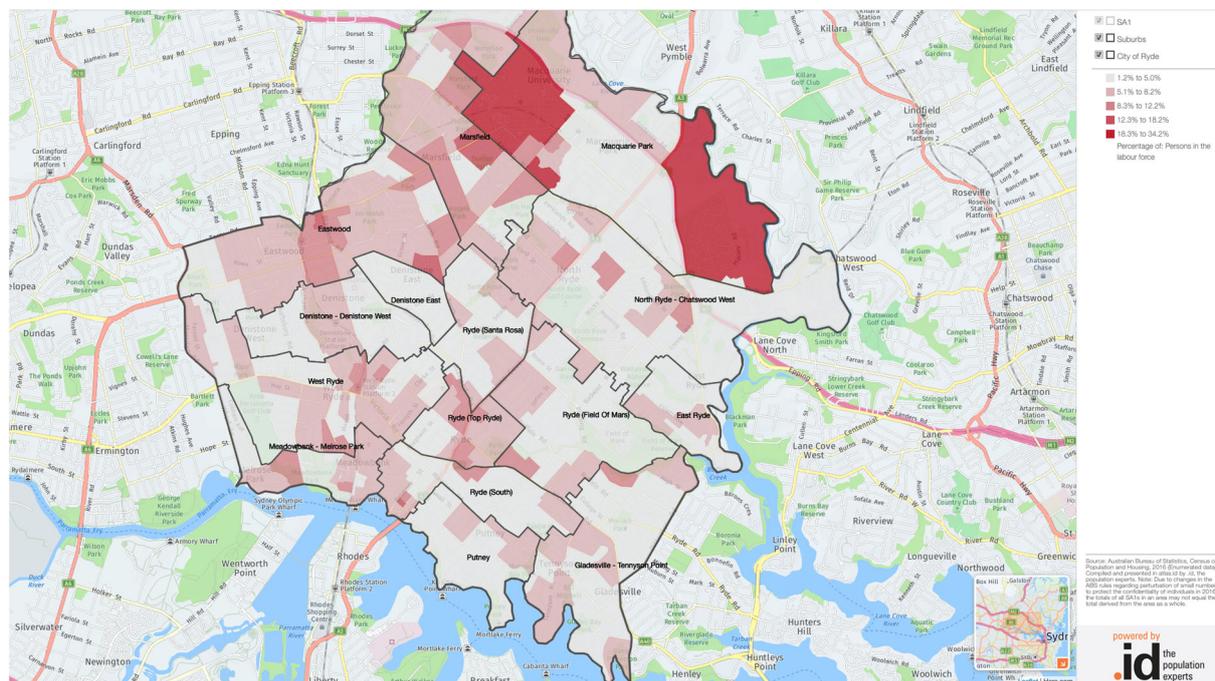
Figure 26: Quarterly Unemployment rate, Ryde and comparison areas, 2011-2018



Source: profile .id

Figure 27 maps the unemployment rate across the City at the 2016 Census. Macquarie Park had the highest unemployment rate at 11.1 per cent.

Figure 27: Map of unemployment rates, 2016



Source: profile .id

4.8 Industry of employment

The three highest ranking industry sectors in Ryde are Professional, Scientific and Technical Services (12.7 per cent), Health Care and Social Assistance (11.8 per cent) and Retail trade (9.1 per cent). When comparing Ryde LGA to Greater Sydney, most industries had similar participation levels, except for construction and manufacturing which was slightly lower in Ryde, and significantly higher proportion of residents were employed in the Professional, Scientific and Technical Services industry. The later was also the highest growth sector with an increase in 1,073 persons between 2011 and 2016. Manufacturing had the biggest decline, with a decline of 616 persons employed in this industry.

Table 7: Industry of Employment, 2011 and 2016

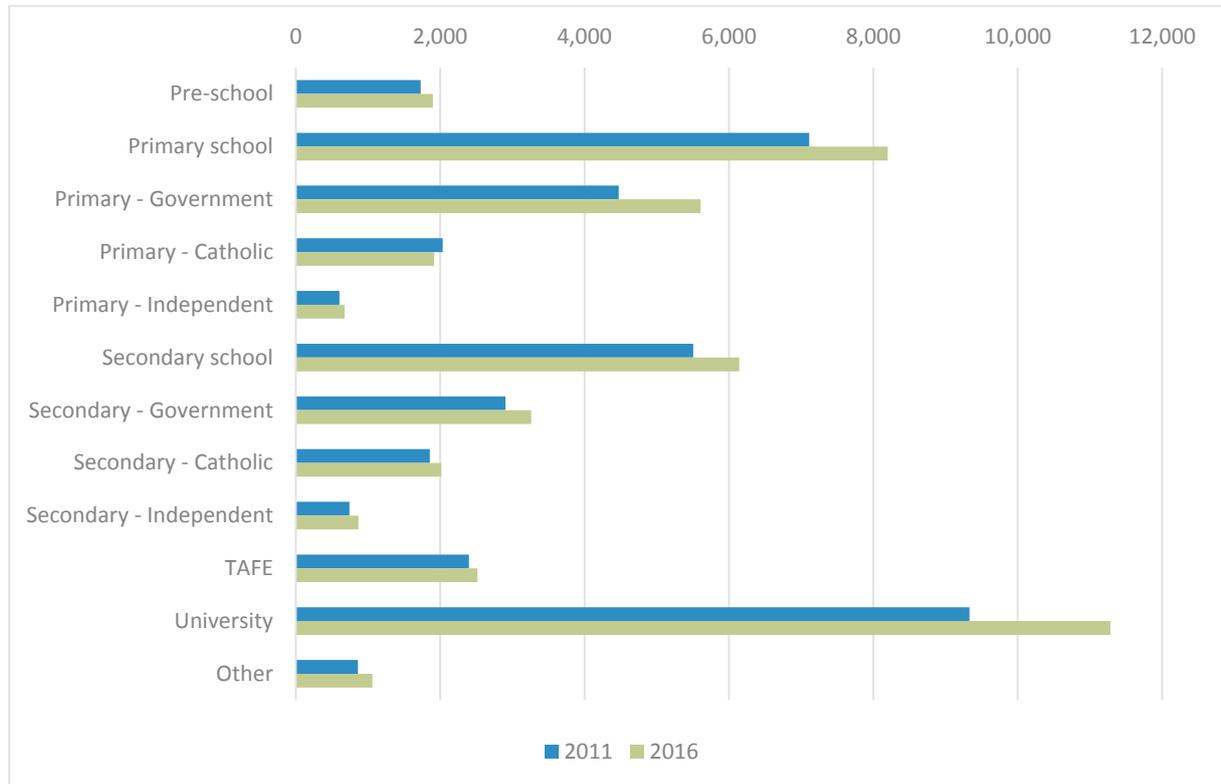
Industry sector	2011			2016			2011 to 2016
	Persons	Ryde %	Greater Sydney %	Persons	Ryde %	Greater Sydney %	
Agriculture, Forestry and Fishing	48	0.1	0.4	104	0.2	0.4	+56
Mining	69	0.1	0.2	76	0.1	0.2	+7
Manufacturing	3,348	6.7	8.5	2,732	4.8	5.8	-616
Electricity, Gas, Water and Waste Services	384	0.8	0.9	360	0.6	0.8	-24
Construction	2,905	5.8	7.1	3,533	6.2	8.2	+628
Wholesale trade	3,204	6.4	5.3	2,696	4.7	3.6	-508
Retail Trade	4,715	9.4	9.8	5,196	9.1	9.3	+481
Accommodation and Food Services	2,965	5.9	6.2	3,831	6.7	6.7	+866
Transport, Postal and Warehousing	1,731	3.4	5.3	1,833	3.2	5.0	+102
Information Media and Telecommunications	2,103	4.2	3.0	2,364	4.1	2.8	+261
Financial and Insurance Services	3,716	7.4	6.6	4,239	7.4	6.4	+523
Rental, Hiring and Real Estate Services	873	1.7	1.8	1,231	2.2	1.9	+358
Professional, Scientific and Technical Services	6,174	12.3	9.6	7,247	12.7	9.8	+1,073
Administrative and Support Services	1,765	3.5	3.5	1,944	3.4	3.6	+179
Public Administration and Safety	2,357	4.7	5.6	2,589	4.5	5.5	+232
Education and Training	4,361	8.7	7.6	5,069	8.9	8.0	+708
Health Care and Social Assistance	5,765	11.5	10.9	6,757	11.8	11.6	+992
Arts and Recreation Services	721	1.4	1.6	817	1.4	1.7	+96
Other Services	1,890	3.8	3.7	1,961	3.4	3.6	+71
Inadequately described or not stated	1,211	2.4	2.6	2,660	4.6	5.1	+1,449
Total employed persons aged 15+	50,305	100	0.4	57,239	100	100	+6,934

Source: ABS 2011,2016

4.9 Education

Ryde has experienced increases in enrolments in all education establishments, with the exception of Catholic primary schools, which experienced a minor reduction. Notably, there have been large increases in government primary schools (1,135 or 25 per cent) and university (1,952 or 21 per cent) enrolments.

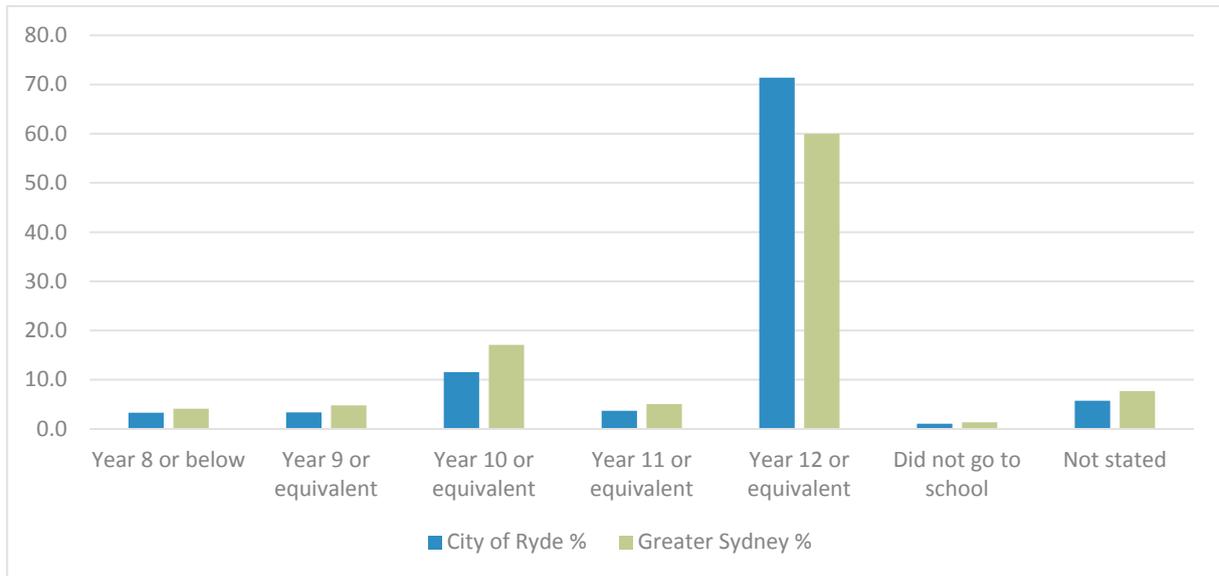
Figure 28: Current education institute attended



Source: profile .id

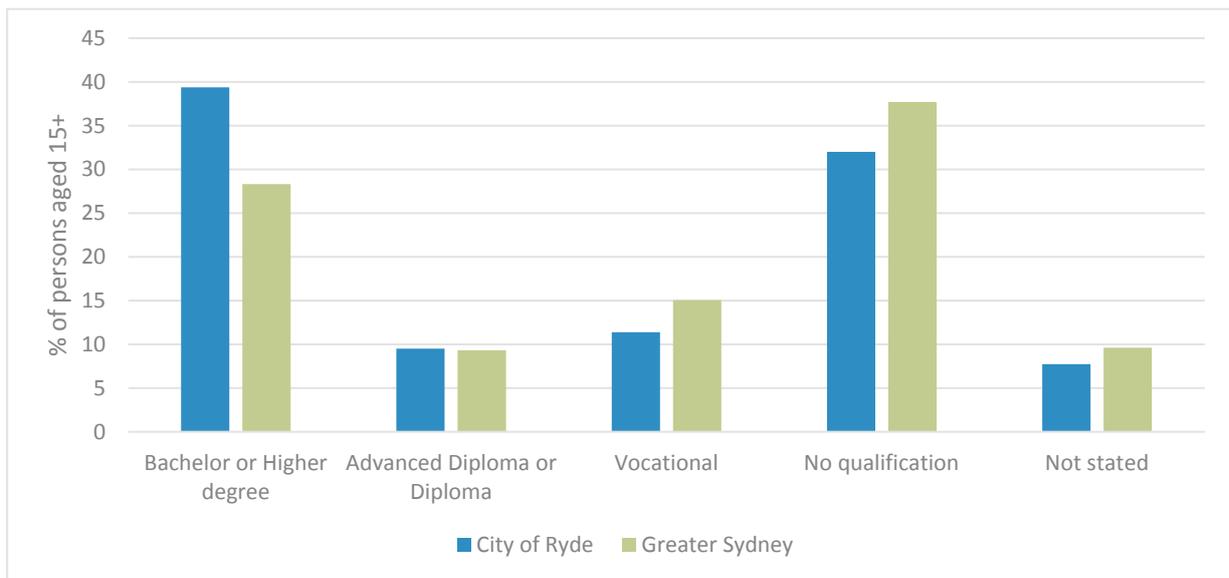
Ryde LGA has higher levels of people finishing Year 12 or equivalent (71.4 per cent) compared to the Greater Sydney Area. In terms of educational qualifications, there is a higher proportion of people with a bachelor or higher degree (39.4 per cent) compared with Greater Sydney (28.3 per cent), and less with no qualifications (32.0 per cent in Ryde compared with 37.7 per cent in Greater Sydney).

Figure 29: Highest Level of Schooling Completed, 2016



Source: profile .id

Figure 30: Highest Level of Schooling Completed, 2016



Source: profile .id

Examining the suburbs, Meadowbank/Melrose Park Macquarie Park appeared to have high proportions of people with bachelor’s degrees, whereas Ryde (Field of Mars), Ryde (Santa Rose) and North Ryde/Chatswood West had high proportions of people with no qualifications.

Table 8: Educational Qualifications by Suburb, 2016

Suburb	Bachelor or Higher degree	Advanced Diploma or Diploma	Vocational	No. qualification
Denistone - Denistone West	41.9	8.9	10.6	33.0
Denistone East	39.7	10.0	11.3	32.6
East Ryde	38.8	13.0	13.8	31.6
Eastwood	40.6	9.3	8.6	34.6
Gladesville - Tennyson Point	35.4	10.9	13.7	31.6
Macquarie Park	48.4	7.9	6.1	27.9
Marsfield	42.7	8.7	9.1	30.9
Meadowbank - Melrose Park	50.1	9.6	10.4	24.4
North Ryde - Chatswood West	34.4	9.1	13.8	35.7
Putney	34.1	10.7	15.5	32.8
Ryde (Field of Mars)	28.6	10.0	15.3	38.3
Ryde (Santa Rosa)	29.3	10.3	14.9	36.6
Ryde (South)	42.3	9.6	9.6	28.4
Ryde (Top Ryde)	38.0	9.4	12.3	31.3
West Ryde	40.5	9.7	11.9	30.8
Ryde City	39.4	9.5	11.4	32.0
Greater Sydney	28.3	9.3	15.1	37.7

NOTES: Green marks a score that is significantly above the average, red marks a score that is significantly below the average.

4.10 Household income

Ryde LGA’s median household income is \$1,781, which is similar to Greater Sydney (\$1,745)⁸, but significantly less than the NSROC region (\$2,218). Analysis of household income levels in the LGA of Ryde in 2016 compared to Greater Sydney shows that there was a larger proportion of high income households (those earning \$2,500 per week or more) and a similar proportion of low income households (those earning less than \$650 per week). There was a high proportion of negative/no income, which is assumed to be made up primarily of the university student population.

Overall, 29.2 per cent of the households earned a high income and 15.5 per cent were low income households, compared with 28.3 per cent and 15.1 per cent respectively for Greater Sydney.

Figure 31: Weekly Household Income – Ryde and Greater Sydney 2016

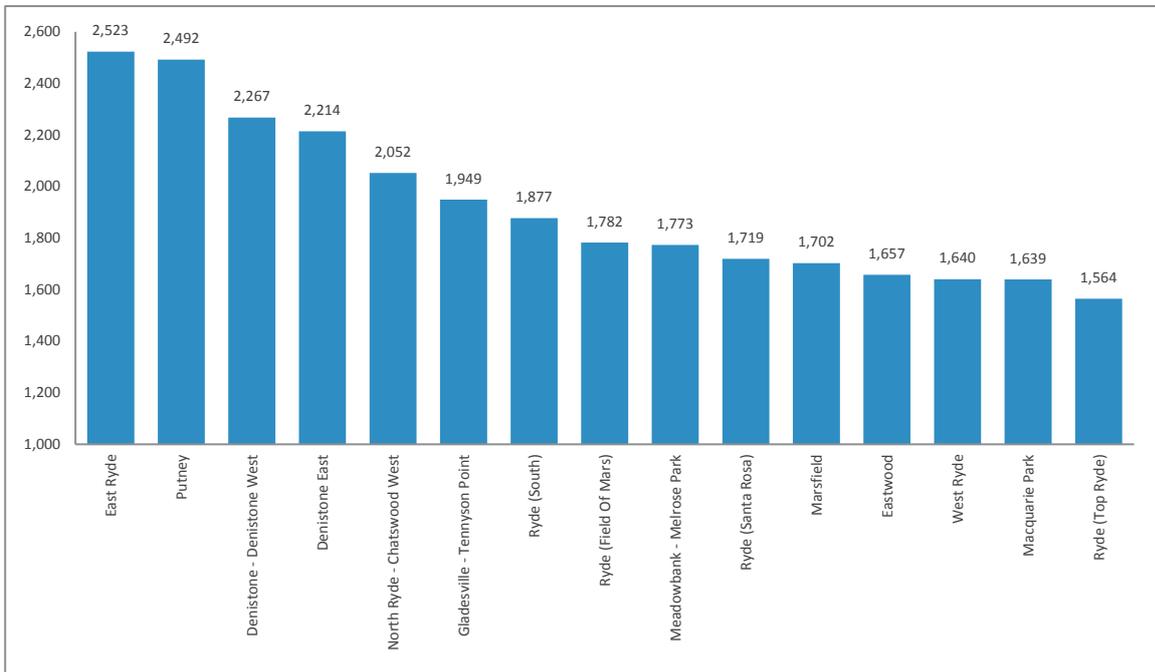


Source: profile .id

Examining household income within the Ryde LGA, there is a significant variation of median incomes as illustrated in Figure 32. East Ryde and Putney have significantly higher median household income when compared with the median for the LGA and Greater Sydney. Conversely, Ryde (Top of Ryde), Macquarie Park and West Ryde have significantly lower median income levels.

⁸ ABS Census, 2016

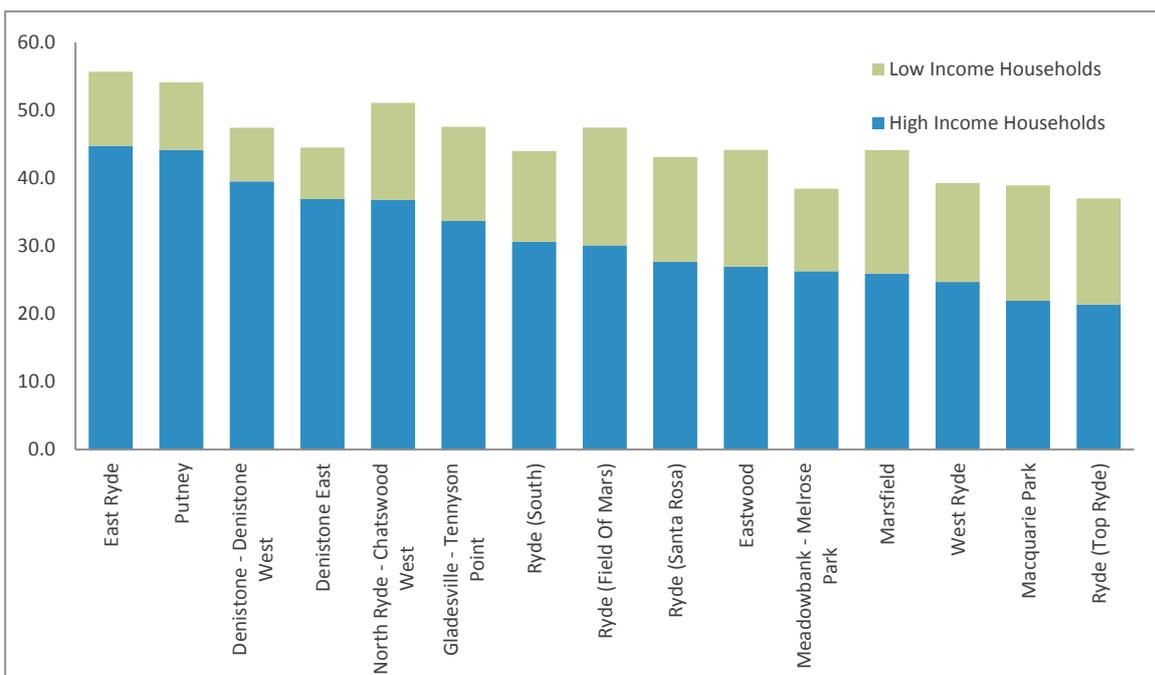
Figure 32: Median Household Income by Suburb, 2016



Source: ABS 2016

Figure 33 demonstrates the variation in household income across the suburbs of the Ryde LGA. Specifically, the contrast between the suburbs on the left of the chart like East Ryde and Putney, where almost half of these households are high income households, and suburbs to the right such as Macquarie Park, where only around 21.9 per cent are high income households – almost the same amount of Low Income households (17 per cent).

Figure 33: Low Income and High Income Households by Suburb, 2016



Source: ABS 2006, 2011, 2016

NOTES: High income households refer to those receiving more than \$2,500 per week (before tax in 2016). Low income households refer to those receiving less than \$650 per week (before tax in 2016).

ASSESSMENT OF HOUSING NEEDS

5.0 ASSESSMENT OF HOUSING NEEDS

5.1 Housing supply

5.1.1 Dwelling type

At the 2016 Census, there were 46,149 dwellings in the Ryde LGA. This included:

- Separate houses: 21,310 dwellings (46.2 per cent)
- Medium density: 9,175 dwellings (19.9 per cent)
- High density: 15,244 dwellings (33 per cent)
- Caravans, cabins and houseboats: 49 dwellings (0.1 per cent)
- Other: 138 dwellings (0.3 per cent).

For the purposes of classification of dwelling types, medium density dwellings include the following types of housing:

- Semi-detached
- Row
- Terrace
- Townhouses/villas
- Apartments in blocks of one or two storeys.

High density housing includes apartments in three or more storeys.

A summary of changes in the number of dwellings in Ryde between 2011 and 2016, with comparisons to Greater Sydney, is provided at Table 9. As shown, in that table, Ryde has a lower proportion of separate houses and higher proportion of high-density dwellings than Greater Sydney, with the differences increasing between 2011 and 2016. That difference is expected to increase in the future, as more separate houses are converted to apartments.

With respect to medium density housing, there has been a minor increase in the number of medium density dwellings between 2011 and 2016. The proportion has generally been aligned with Greater Sydney.

Table 9: Number of dwelling types, 2011 and 2016

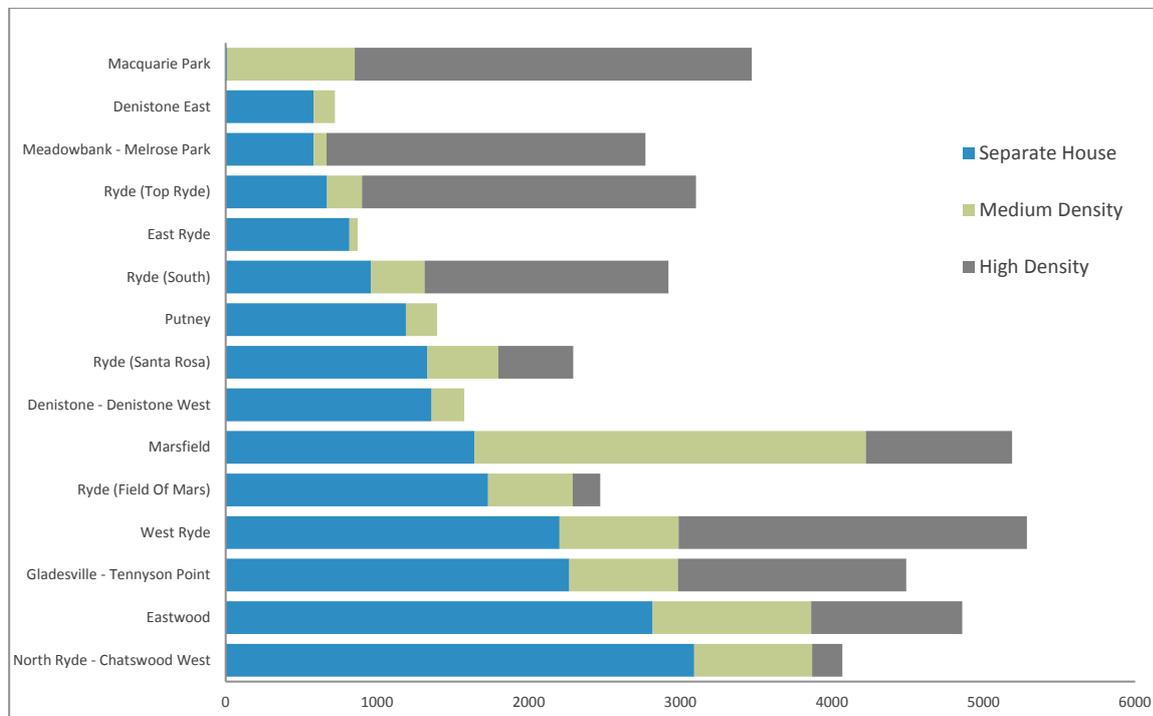
Dwelling type	2011			2016		
	Ryde Count	Ryde (%)	Greater Sydney (%)	Ryde Count	Ryde (%)	Greater Sydney (%)
Separate house	21,448	51.5	58.9	21,310	46.2	55.0
Medium density	9,020	21.6	19.7	9,175	19.9	20.3
High density	11,044	26.5	20.7	15,244	33.0	23.5
Caravans, cabin houseboat	73	0.2	0.2	49	0.1	0.2
Other	66	0.2	0.4	138	0.3	0.5
Not Stated	27	0.1	0.1	233	0.5	0.4
Total	41,678			46,149		

Source: profile .id

Consideration of the local distribution of housing is provided at Figure 34. Suburbs are used in order to provide relevant local context, though they do not consistently align with the Ryde LGA boundary. Marsfield and West

Ryde have high proportions of high and medium density, with Macquarie Park having almost entirely all high and medium density dwellings. Meadowbank/Melrose Park and Ryde (Top Ryde) also have high proportions of high-density dwellings. While North Ryde has one of the lower proportions of flats and apartments, this expected to change as the North Ryde Station Precinct developments come on-line.

Figure 34: Number of Dwellings by Suburb (Separate House, Medium Density and High Density) 2016



Source: ABS 2016

5.1.2 Number of bedrooms

Overall, there was a higher proportion of dwellings with 2 bedrooms and studio or 1 bedroom, and a lower proportion of dwellings with 3 and 4 bedrooms when compared to Greater Sydney.

Table 10: Number of bedrooms, 2011 and 2016

Dwelling type	2011			2016		
	Ryde Count	Ryde (%)	Greater Sydney (%)	Ryde Count	Ryde (%)	Greater Sydney (%)
0 or 1 bedroom	3,346	8.5	7.3	4,611	10.7	7.8
2 bedrooms	12,253	31.3	23.9	13,523	31.4	23.7
3 bedrooms	12,903	33	35.2	12,256	28.5	32.1
4 bedrooms	6,682	17.1	21.5	7,270	16.9	22.0
5 bedrooms or more	2,278	5.8	6.2	3,103	7.2	7.3
Not stated	1,694	4.3	5.9	2,249	5.2	7.1
Total	39,156			43,012		

Source: profile .id

Dwelling size (bedrooms) across the LGA is generally broken up between centres, with a high number of apartments, and low-density residential areas, which have a high number of separate houses.

Macquarie Park, Meadowbank/Melrose Park and Ryde (Top of Ryde) have large proportions of 0 or 1 bedroom dwellings, and 2-bedroom dwellings, reflecting the high number of flats and apartments in these suburbs. Similarly, East Ryde and Putney have high proportions of larger homes (4 and 5 bedrooms), reflective not only of the high proportions of separate houses in these suburbs, but primarily the high median household incomes.

This distribution allows for a number of household types and incomes across the LGA. However, it may also mean that larger families, that may otherwise prefer to live near centres, are pushed to low density residential areas that are not as well serviced in the immediate vicinity.

5.1.3 Housing suitability

The ABS produces 'housing suitability' data that relates to the number of people that identified living in a dwelling, their relationships and the number of bedrooms in that dwelling. This data is compared to provide a rough estimate of how many spare bedrooms or how many extra bedrooms needed there may be in a dwelling. The data provides a useful metric for understanding overcrowding, though it is limited by the assumptions made to determine when a bedroom is required. The assumptions are:

- There should be no more than two persons per bedroom
- Children less than five years of age of different sexes may reasonably share a bedroom
- Children less than 18 years of age and of the same sex may reasonably share a bedroom
- Single household members 18 years and over should have a separate bedroom, as should parents or couples and
- A lone person household may reasonably occupy a bed sitter or one-bedroom dwelling.

The assumptions are generally conservative, as many households will prefer an extra bedroom.

A summary of the housing suitability findings for Ryde is shown in Table 11.

Table 11: Housing suitability summary, 2016

Bedrooms	Separate house	Semi, row, terrace	Flats	Total
4+ spare	3.0%	0.2%	0.1%	1.5%
3 spare	11.6%	1.6%	0.1%	5.9%
2 spare	30.5%	20.0%	3.0%	18.9%
1 spare	30.9%	40.5%	35.0%	33.9%
No spare	15.7%	29.3%	48.0%	29.5%
1 needed	3.0%	4.9%	10.1%	5.9%
2 needed	0.5%	0.6%	1.4%	0.8%
3 needed	0.1%	0.1%	0.2%	0.1%
4+ needed	0.1%	0.0%	0.0%	0.1%
Unable to determine	4.6%	2.8%	2.3%	3%
Total	100%	100%	100%	100%

Source: Census 2016

As shown in the data summary, housing overcrowding is generally not an issue in Ryde, with only 6.9 per cent of households potentially requiring an additional bedroom. The bulk of this, 5.9 per cent, is associated with requiring a single extra bedroom. This may be associated with two opposite sex children sharing a bedroom, or a similar circumstance.

Notably, 76 per cent of separate houses had at least one spare bedroom, with 45 per cent having at least two spare, with semis and similar housing types having 62 and 21 per cent, respectively. Conversely, 82 per cent of

flats had no or one spare bedroom. This suggests that separate houses in Ryde are generally larger than required, while flats are more likely to meet the basic size requirements of their occupants. aligning with the generally high number of bedrooms associated with these dwellings, and the reducing average household size.

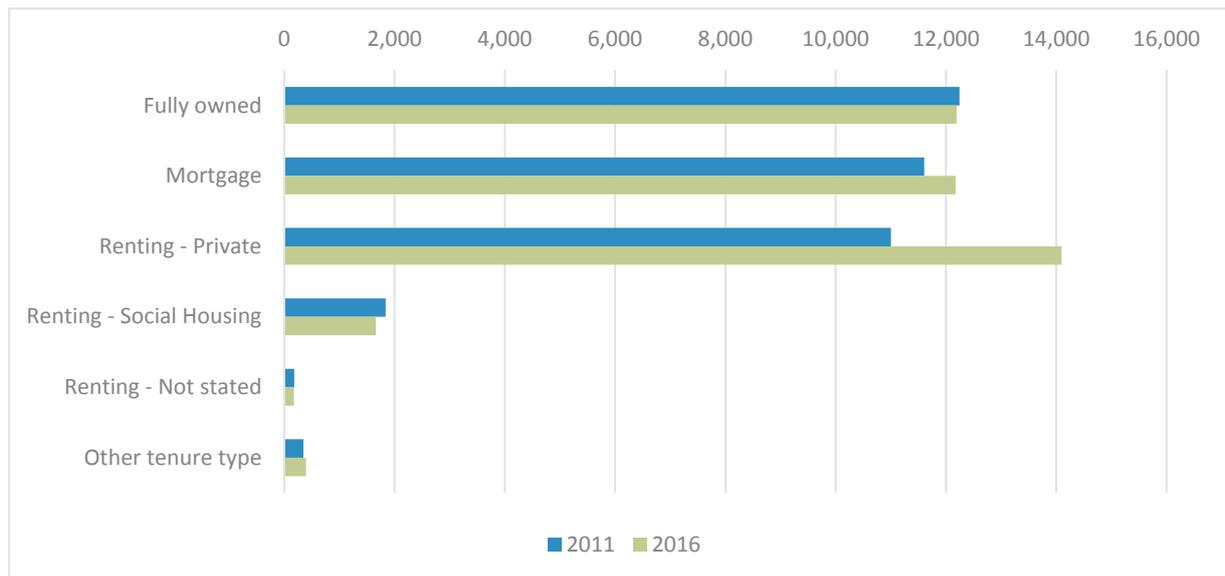
This measure does not consider housing preference, or alternate uses for bedrooms (e.g. study, entertainment areas, guest rooms, etc). An alternative explanation would be that people that choose separate dwellings and semis prefer additional bedrooms that suit other uses.

5.1.4 Housing tenure

The 2016 Census indicated private renting was the most common housing tenure in the Ryde LGA, as seen in Figure 35. Comparing the 2011 and 2016 Ryde and Greater Sydney data, the following was noted:

- The 2016 Ryde proportion of private renting was 37.1 per cent, higher than the 2016 proportion for Greater Sydney (32.6 per cent), and an increase over the Ryde proportion of 33.3 per cent
- The proportions of Ryde housing that was fully owned was higher than Greater Sydney (28.3 per cent vs 27.7 per cent), but the proportion mortgaged was lower (38.3 per cent vs 31.5 per cent) or mortgaged (31.5 per cent) was lower than Greater Sydney (56.6 per cent for Ryde LGA and 59.2 per cent in Greater Sydney)
- The largest change in housing tenure between the 2011 and 2016 Census period was with private rentals, increasing by 3,097
- The amount of social housing in Ryde dropped from 1,840 dwellings in 2011 to 1,660 dwellings in 2016, or almost 10 per cent.

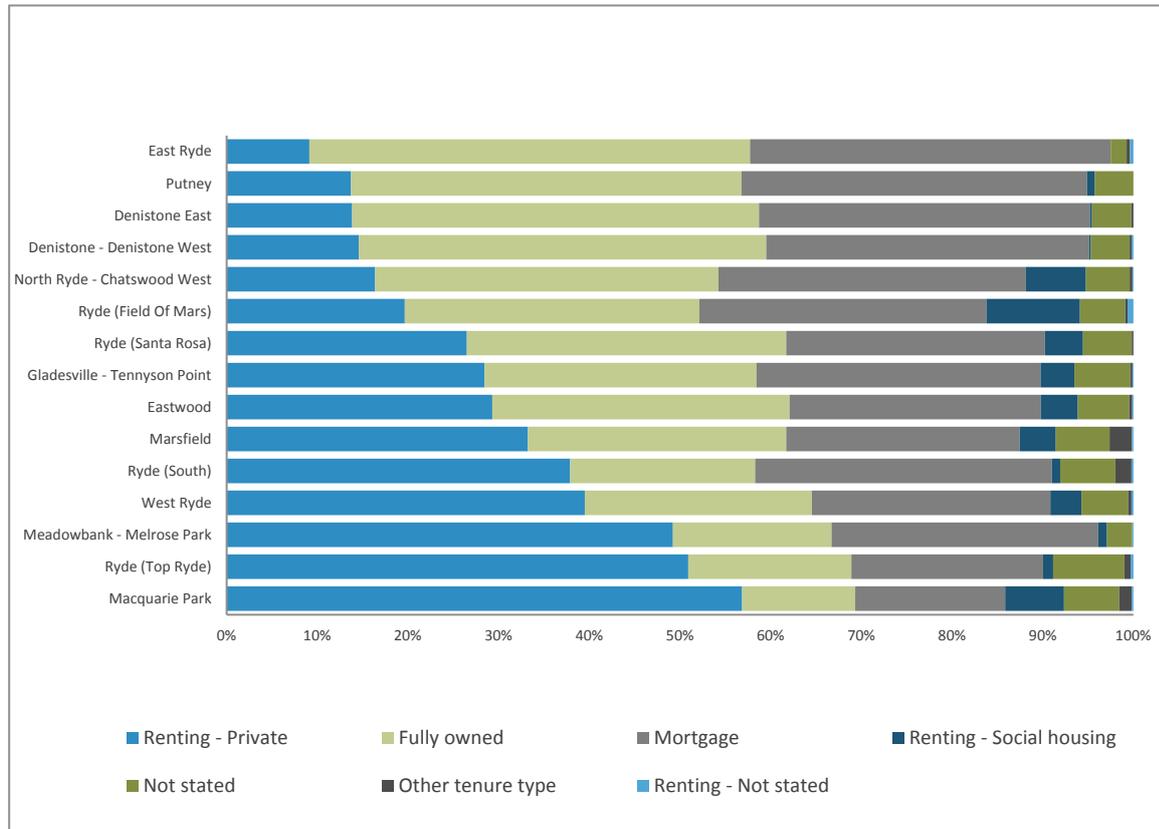
Figure 35: Housing Tenure, 2011 and 2016



Source: ABS 2016

Figure 36 further explores tenure mix, showing the proportion of housing tenures within each suburb.

Figure 36: Housing Tenure by Suburb, 2016



Source: ABS 2016

It appears that tenure is correlated to age and household income status. East Ryde and Putney have 48.6 per cent and 43.1 per cent of homes fully owned respectively, whereas Macquarie Park and Top of Ryde have only 12.5 per cent and 18 per cent respectively.

Social housing is highest in Field of Mars at 10.5 per cent of homes.

5.1.5 Vacancy rates

The 2016 Ryde vacancy rate was approximately 6.8 per cent, with 3,136 of the 46,149 private dwellings in Ryde being unoccupied. This is lower than the Greater Sydney rate of 7.3 per cent. However, it is an increase over the 2011 vacancy rate of 6.0 per cent (6.9 per cent Greater Sydney).

According to REINSW, rental vacancy rates for Middle Sydney (including Ryde) was 1.6 per cent in August 2016. The most recent June 2019 report estimates that the rental vacancy rate in the area is now 3.4 per cent.

5.1.6 Development pipeline

Council has undertaken an analysis of recently approved development applications to understand the likely effect of dwelling potential currently in the development pipeline and potential short-term dwelling production. Council’s analysis included development applications, complying development certificates and strata subdivisions in residential zones between January 2014 to December 2018 and in town centres between January 2013 to December 2018.

The data provided by Council has been extrapolated to provide an indication of likely future dwelling production from the existing pipeline of developments. The extrapolation assumes:

- A two-year time lapse between development approval and construction completion for low and medium rise developments
- A three-year time lapse between development approval and construction completion for high rise developments
- Demolitions where appropriate (e.g. replacing one dwelling with four dwellings would count as three additional dwellings) as determined using cadastral information, contemporary aerial photographs and site inspections.

Table 12 and Table 13 present extrapolated development approvals based on the above assumptions. They demonstrate that up to 2,257 dwellings in residential zones and a further 10,430 dwellings in existing centres may be delivered in the 2016 to 2021 timeframe.

Table 12: 2016 to 2021 Projected dwelling delivery in residential zones

Zone	Type	2016	2017	2018	2019	2020	2021*	Total
R1	Small lot	-	16	-	-	-	-	16
	RFB	-	-	148	131	174	-	453
	Semi-Detached	-	-	15	-	25	-	40
	R1 Total	-	16	163	131	199	-	509
R2	Semi-Detached (Dual Occ)	78	75	76	93	73	79	474
	MDU	71	62	37	77	52	60	359
	Secondary Dwellings	111	149	133	124	98	123	738
	Boarding House	8	9	-	-	10	-	27
	Seniors Housing (Independent)	-	-	-	36	-	-	36
	R2 Total	268	295	246	330	233	262	1,634
R3	R3 Total	-	-	-	-	-	-	0
R4	RFB	-	-	-	-	43	19	62
	Boarding House	-	-	-	47	-	-	47
	Registered SP	-	-	-	5	-	-	5
	R4 Total	-	-	-	52	43	19	114
	Residential Zone Total	268	311	409	513	475	281	2,257

Note: 2021 delivery is extrapolated from anticipated 2019 approvals

Table 13: 2016 to 2021 anticipated dwelling delivery in town centres (within a business zone)

Town Centre	Type	2016	2017	2018	2019	2020	2021	Total
Meadowbank	RFB	-	273	1,399	314	58	43	2,087
	Other strata	-	-	-	201	276	511	988
	Total	-	273	1,399	515	334	554	3,075
Ryde Town Centre	RFB	-	49	24	161	35	181	450
	Strata	-	-	-	-	24	28	52
	Total	-	49	24	161	59	209	502
Gladesville Town Centre	RFB	26	87	72	215	122	87	609
	Strata	-	-	-	16	109	-	125
	Total	26	87	72	231	231	87	734
Eastwood Town Centre	RFB	-	79	-	150	76	77	382
	Pending approval	-	-	-	-	-	409	409
	Total	-	79	-	150	76	486	791
West Ryde Town Centre	Boarding Houses	-	-	-	-	-	40	40
	Total	-	-	-	-	-	40	40
Macquarie University/Herring Road Station Priority Precinct and North Ryde Station Priority Precinct	RFB	-	-	380	189	1,509	347	2,425
	Serviced Apts	-	-	187	154	-	-	341
	Student Housing	-	-	100	-	-	-	100
	Strata	-	-	-	-	503	210	713
	North Ryde Station Priority Precinct	-	-	-	830	-	879	1709
	Total	-	-	667	1,173	2,012	1,436	5,288
TOTAL		26	488	2,162	2,230	2,712	2,812	10,430

Source: Ryde Council, HillPDA

Table 14: Potential 2016 to 2021 dwelling delivery

Area	2016	2017	2018	2019	2020	2021	Total
Residential zones	268	311	409	513	475	281	2,257
Town Centres	26	488	2162	2230	2712	2812	10,430
Total	294	799	2571	2743	3187	3093	12,687

Source: Ryde Council, HillPDA

Not all dwelling approvals are likely to proceed to construction and completion. A conservative assumption is that 70 per cent of development approvals will proceed to completion. This suggests that approximately 9,000 dwellings are likely to be delivered from developments in the pipeline.

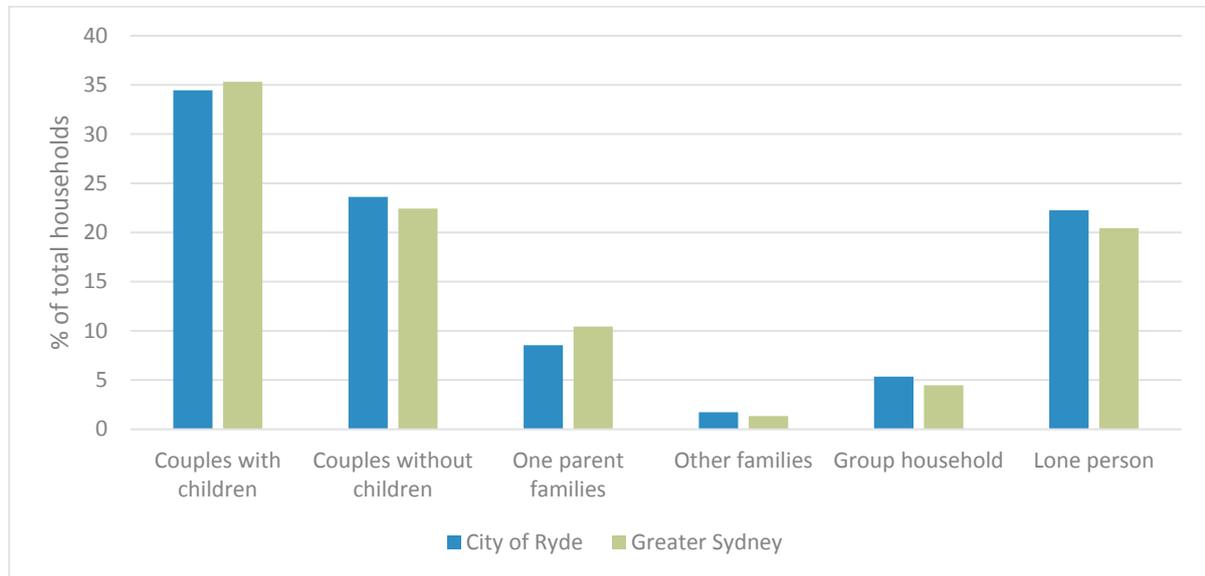
5.2 Indicators of housing demand

5.2.1 Household type

There was a total of 43,020 households in the Ryde LGA at the 2016 Census. The Population Experts' population forecasts for the Ryde LGA indicate that the total number of households will increase from 45,243 in 2016 to 56,453 in 2026 and 64,419 in 2036. The average annual household growth will increase to 2.9 per cent in 2019 and steadily decrease to 1.7 per cent in 2026 and 1.1 per cent in 2036.

There are slightly higher proportions of lone person (22.3 per cent) and group households (5.4 per cent) in Ryde LGA than in Greater Sydney (20.4 per cent and 4.5 per cent respectively), as seen Figure 37. There were also slightly more couple families without children.

Figure 37: Relative proportion of Household Type, Ryde City and Greater Sydney, 2016

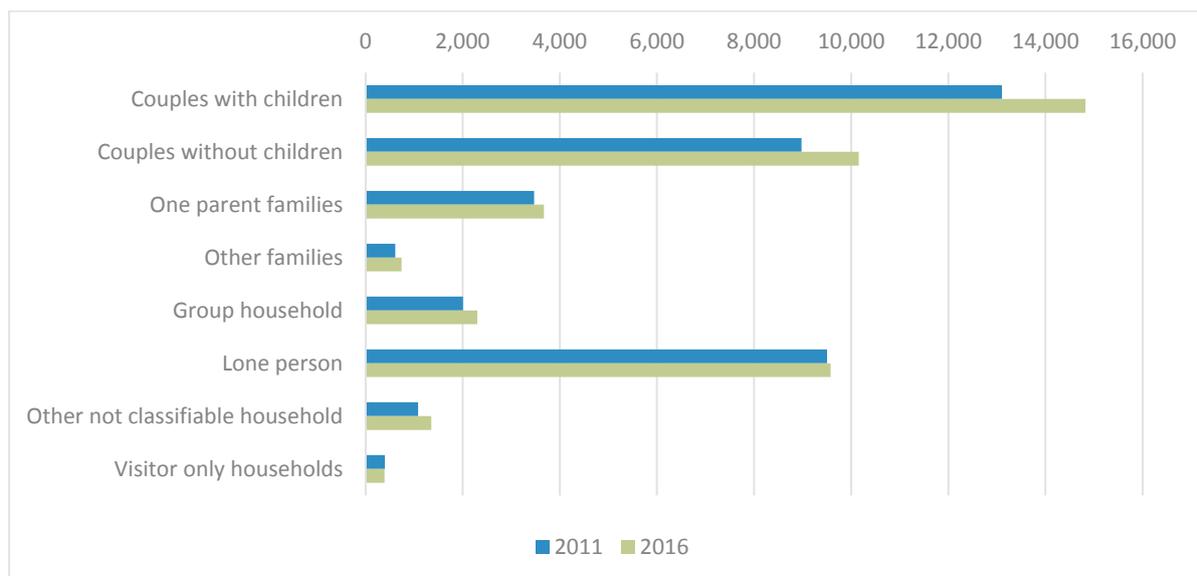


Source: profile .id

In terms of household composition over time, the largest changes from 2011 to 2016 were:

- Couples with children - +1719 households and a 1.0 per cent increase
- Couples without children - +1178 households and a 0.7 per cent increase
- Lone Person households - +71 households, although a -2.0 per cent decrease.

Figure 38: Change in Household Type, 2011-2016



Source: profile .id

Ryde LGA had higher proportions of households classed as ‘young lone person households’ (aged 15-44 years) at 7.1 per cent compared to 5.8 per cent in Greater Sydney. Similarly, 11.1 per cent of the LGA of Ryde's households were classed as young couples without children compared to 8.3 per cent in Greater Sydney. These types of

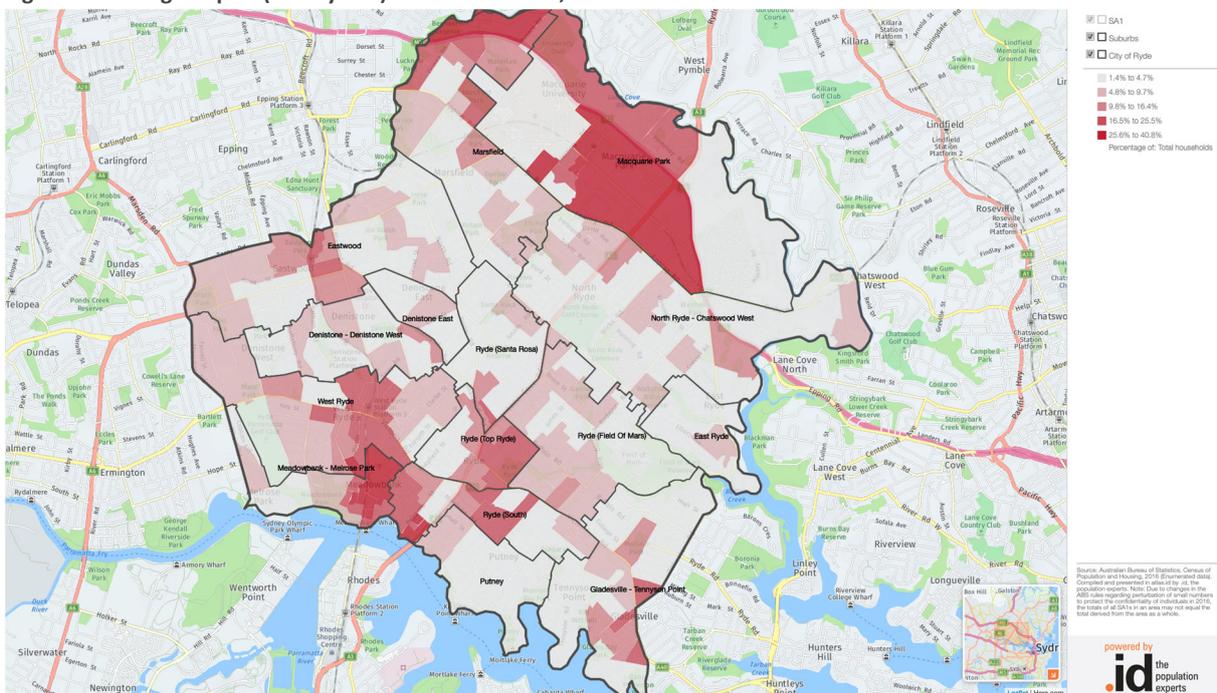
households are concentrated around the University and higher density centres. Table 15 indicates the suburbs with the highest concentration of young lone person households and young couples without children.

Table 15: Suburbs with highest proportions of young lone person and couples without children households.

Suburb	Young lone person households	Young couples without children
Macquarie Park	13.8%	21.9%
Meadowbank / Melrose Park	13.1%	21.9%
Ryde (Top Ryde)	11.8%	14.8%
Ryde (South Ride)	9.0%	18.6%

Source: profile .id

Figure 39: Young Couples (15-44years) without children, 2016.

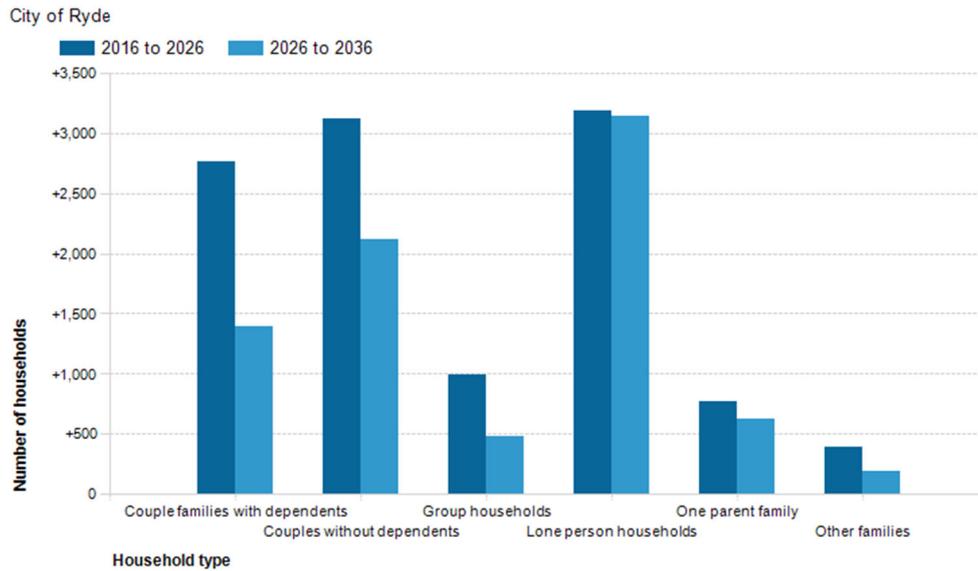


Source: profile .id

Population forecasts indicate household types will generally continue along these historical growth patterns. There will be highest growth in lone person households (+6,329 by 2036), which will become the second most common household type by 2036⁹, at 26.3 per cent in 2036, behind couple families with dependents at 30.1 per cent.

⁹ profile .id.

Figure 40: Forecast change in household types, 2016-2036



⁹Population and household forecasts, 2016 to 2036, prepared by .id the population experts, November 2017.



Source: profile .id

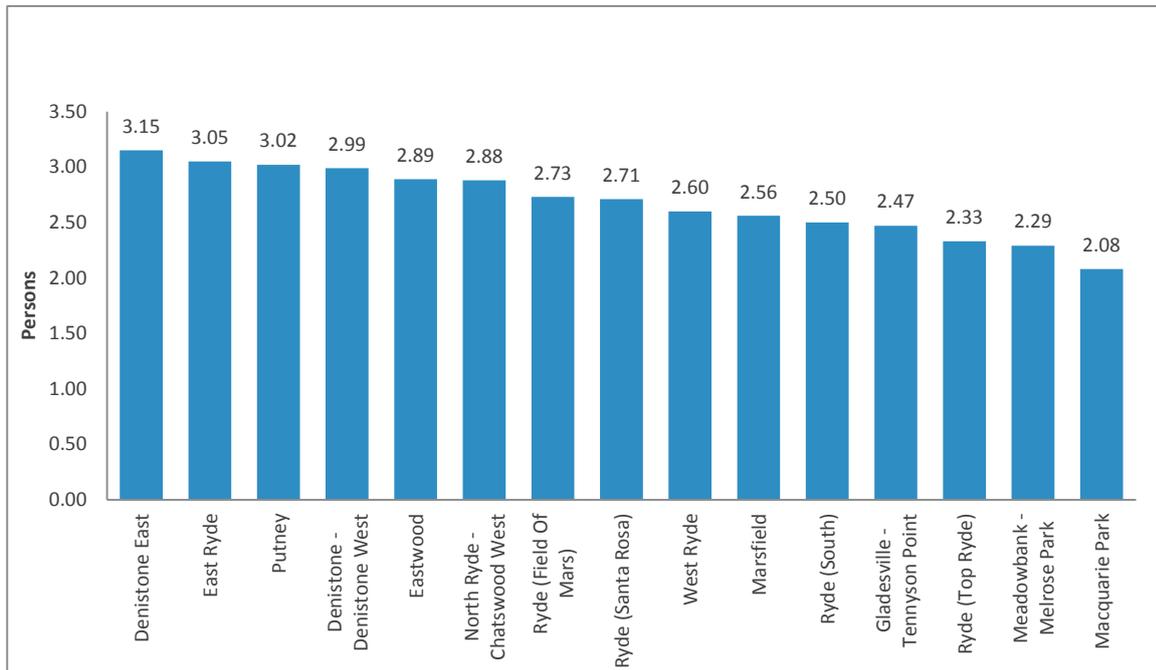
5.2.2 Household size

The average household size in the Ryde LGA at the 2016 Census was 2.61 persons per dwelling, which is slightly smaller than the Greater Sydney average of 2.72 persons. It increased slightly from the 2011 Census. Population forecasts indicate average household size will start to gradually decline, reaching 2.58 persons in 2026, and 2.50 persons in 2036¹⁰.

Examining average household size by suburb, the higher density suburbs of Macquarie Park and Meadowbank/Melrose Park had significantly smaller household sizes, whereas Denistone East, East Ryde and Putney had significantly larger than average household sizes.

¹⁰ profile .id.

Figure 41: Average Household Size (per dwelling) by Suburb, 2016



Source: ABS 2016

Table 16 illustrates household size comparisons to Greater Sydney. Ryde LGA has a higher proportion of one, two and three-person households than Greater Sydney. Similarly, it has lower proportions of 4, 5 and 6 or more person households than Greater Sydney. The greatest change in household size was seen in the two-person households with an increase of 1,154 households between 2011 and 2016.

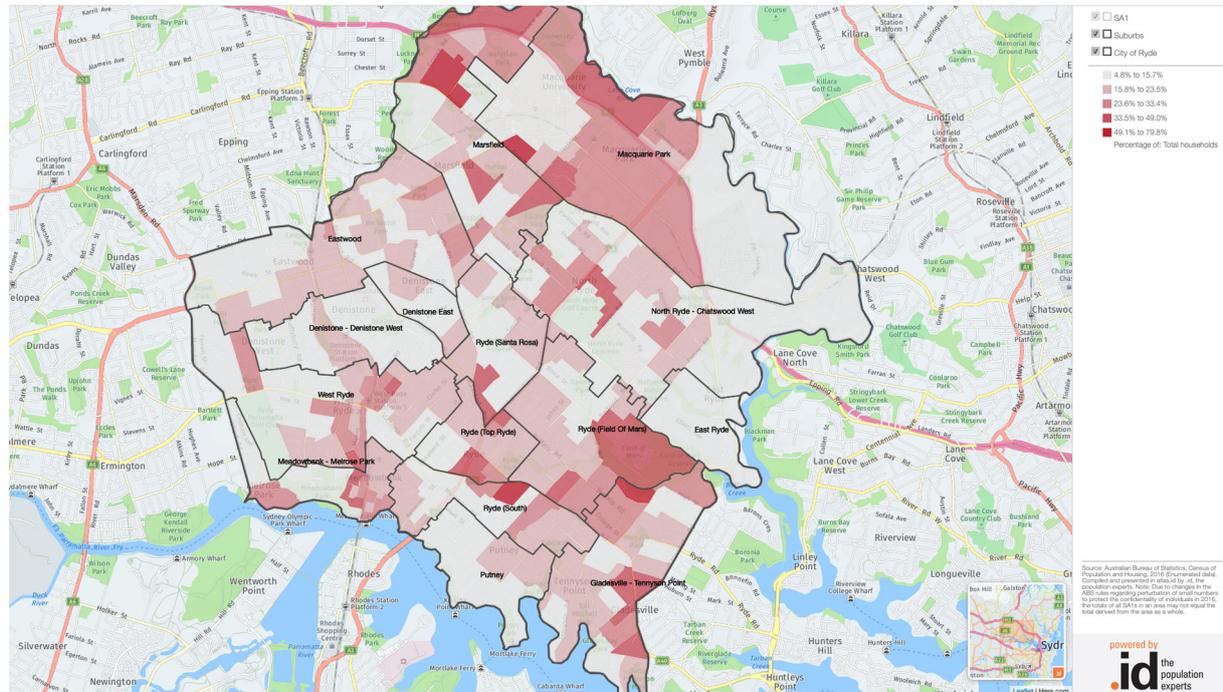
Table 16: Household Size – 2016 and 2011

Number of persons resident	2011			2016			Change
	Number	%	Greater Sydney	Number	%	Greater Sydney	2011 to 2016
1 person	9,503	25.2	22.6	9,579	23.2	21.6	+76
2 persons	11,550	30.7	30.7	12,704	30.8	29.9	+1,154
3 persons	6,610	17.5	17.2	7,625	18.5	17.6	+1,015
4 persons	6,535	17.3	17.5	7,201	17.4	18.1	+666
5 persons	2,489	6.6	7.8	2,773	6.7	8.0	+284
6 or more persons	992	2.6	4.2	1,390	3.4	4.7	+398
Total Classifiable households	37,679	100.0	100.0	41,272	100.0	100.0	+3,593

Source: ABS 2016

Lone person households appear to be particularly concentrated around the University at Macquarie Park and around transport nodes at Meadowbank. These locations generally correlate with areas of higher concentrations of 25 to 34 year old residents.

Figure 42: Lone person households, 2016.



Note: Figures based on enumerated population

Source: id – The Population Experts, 2017

5.2.3 Social housing

Social housing is rental housing providing by a mix of organisation, include not-for-profit and government organisations. It is meant to assist households on low and very low incomes secure affordable housing. It includes a mix of public housing (managed by FACS), community housing (managed by community housing providers) and Aboriginal housing (managed by a mix of FACS and community housing providers).

The Ryde LGA is within the CS04 Northern Suburbs allocation zone. As at 30 June 2018, the waiting list for the allocation zone contained:

- 1,292 general applications
- 179 priority applications.

The expected waiting time for all property types (studio/1, 2, 3 and 4+ bedrooms) was five to 10 years.

As at 30 June 2019, the waiting list has expanded:

- 1,346 general applications
- 252 priority applications.

The expected waiting time for studio/1 bedroom and 4+ bedroom properties has increased to 10+ years. The waiting time for 2 and 3 bedroom properties remained at 5 to 10 years.

The social housing stock across Northern Sydney (Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Northern Beaches, Ryde and Willoughby) as at 30 June 2019 is shown in Table 22. In total, there are 6,152 social housing

dwellings, down from 6,270 in 30 June 2018. The bulk of social housing is managed by community housing providers (4,562 dwellings), following a transfer of public housing properties in early 2019.¹¹

Table 17: Northern Sydney social housing stock (30 June 2019)

Housing type	Studio/ 1 bedroom	2 bedroom	3 bedroom	4+ bedroom	Total
Public housing	829	353	341	54	1,577
Aboriginal Housing Office	-	4	6	3	13
Community Housing	2,210	1,546	692	114	4,562
Total	3,039	1,903	1,039	171	6,152

Source: Communities and Justice 2019

5.2.4 Student housing

According to the 2016 Census, approximately 2,516 people identified as students of a ‘Technical or Further Educational Institution (including TAFE Colleges)’ and 11,283 identified as a being a student of a ‘University or other tertiary institution,’ for a total of 13,799 tertiary students. Of these tertiary students, 1,069 stated that they lived in a ‘Residential college, hall of residence’, with a further 25 in other forms of non-private dwellings. The remaining 12,705 tertiary students in Ryde live in private dwellings.

When examining the household structure of tertiary students living in Ryde, approximately 13,883 people were identified. This difference is likely due to how the ABS anonymises Census data. Of these people, approximately 7,924 (57.1 per cent) identified as living within a family household (e.g., living with a partner, parent, child or other family member), 2,615 (18.8 per cent) in a group household (e.g. flat-share), 1,097 (7.9 per cent) with an unrelated family, 735 (5.3 per cent) lived by themselves. A further 293 (2 per cent) identified as visitors. The question was not applicable to 1,214 (8.7 per cent) people, which would partly apply to non-private dwellings.

Considering the age ranges of university students in Ryde, only 7,152 of the 11,283 students were between 18 and 24, the standard tertiary education service age group. A further 2,072 students were between 25 and 29 and 810 between 30 and 34, with over half of the 25 to 34 year old students also working.

Examining the distribution of tertiary students, they primarily live in in Marsfield, Macquarie Park, Eastwood and Meadowbank. With the exception of Eastwood, these areas are characterised by their proximity to tertiary education establishments, (i.e. Macquarie University, TAFE Meadowbank and TAFE Ryde). However, they are all in proximity to rail stations. These areas are areas of highest dwelling density, with the highest proportion of medium and high-density housing.

5.2.5 Seniors housing and people with a disability

For the purposes of housing, the primary planning controls for seniors and people with a disability are contained within *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*.

The SEPP identifies seniors as people who are either:

- Aged 55 or more years
- Resident at a facility at which residential care is provided
- Assessed as being eligible to occupy housing for aged persons provide by a social housing provider.

¹¹ <http://housinginfo.com.au/north-sydney-properties-to-transfer-to-link-housing/>

The SEPP defines people with a disability people of any age who have, either permanently or for an extended period, one or more impairments, limitations or activity restrictions that substantially affect their capacity to participate in everyday life.

In 2016, the population aged 55 or more years was approximately 28,810 people, or 24.8 per cent of the Ryde population. This is an increase of approximately 3,280 people from 2011, or approximately 12.8 per cent, in line with the overall population increase. In 2016, 5,341 people, or 4.6 per cent of the Ryde population identified as having a disability, with 3,778 people being aged 60 or more years. It is noted that the wording of the Census response is derived from assistance-based questions and does not align completely with capacity-based wording of the SEPP. As such, it may underrepresent the population for the purposes of the SEPP.

While the SEPP includes controls that are primarily for purpose-built facilities for seniors and people with a disability, there are opportunities to adapt the design of housing overall to support these populations. The *Liveable Housing Design Guidelines* (Liveable Housing Australia, 2017) is cited by the *Apartment Design Guidelines* as including design features that promote flexible housing for all community members. The most basic 'silver' design features include:

- Step-free and even pathways to entry doors
- Step-free and sheltered entries
- Suitably wide internal doorways and corridors
- Clear areas around toilets with potential to install grabrails in the future
- Slip resistant and hobless showers with the potential to install grabrails in the future
- Installation of handrails at stairways.

The guidelines also include 'gold' and 'platinum' features for other dwelling areas.

The guidelines, while designed to accommodate households including seniors or people with a disability incorporating the *Liveable Housing Design Guidelines* into housing overall would benefit the community in general. They would have the potential to reduce injuries, support aging in place and support residents with temporary injuries.

5.3 Housing affordability

Council adopted the *Ryde Affordable Housing Policy 2016-2031* (Affordable Housing Policy) in April 2016. The Affordable Housing Policy seeks to address housing affordability for key workers in the Ryde LGA, lessening the negative impacts associated with housing stress. There is significant in-migration comes to place of employment. In part, this is due to the inability for key workers to reliably find affordable housing in the Ryde LGA, a symptom of housing stress.

The Affordable Housing Policy notes that there is not a legislated definition for 'key worker' that is relevant to affordable housing. It defines key worker households as those with very low, low and moderate income levels, aligning with the AHSEPP. The policy identifies approximately 15,000 key worker households in the LGA in 2011, with 7,450 requiring affordable priced housing. The 15,000 figure is an approximation based on the number of households below the median income. By 2031, this is projected to increase to 10,700 requiring affordable priced housing. This is an increase of 3,250 over 20 years, or approximately 160 per year.

In the policy, the following benchmarks are provided to define the income levels that would be used to identify key worker households, 2015 dollars.

Table 18: Household income bands as defined by Council

Income band	% of median income	Income Range (per week)	Income Range (per year)
Very Low	50% median	<\$779	<\$40,508
Low	50% - 80% median	\$779 - \$1,246	\$40,508-\$64,792
Moderate	80% - 120% median	\$1,246 - \$1,870	\$64,792-\$97,240

Source: Ryde Council, 2016

When considering the proportion of households with key workers in the Ryde LGA, these bands provide guidance on interpreting 2016 Census data. As the bands provided by the Census do not completely align with Council's bands, they have been adapted to best fit. Table 19 identifies the bands as they generally apply to Census data and the proportion of Ryde households within each band.

Table 19: Household income bands in Ryde

Income band	Income Range (per week)	Households (#)	Households (%)
Very Low	<\$799	9,117	22.5
Low	\$800 - \$1,249	5,301	13.1
Moderate	\$1,250 - \$1,999	8,017	19.8
Above Moderate	>\$1,500	18,136	44.6

Source: 2016 Census

Note 'partial income stated', 'all incomes not stated' and 'not applicable' households excluded from total

The total number of key worker households living in Ryde as of 2016 was approximately 22,500, or over 55 per cent of all households. Using the median household income method of the Affordable Housing Policy, the approximate number of key worker households was about 16,000, or around 42 per cent of all households. While the method of identifying the exact number of keyworker households in the Ryde LGA varies, it is evident that key worker households are a significant population in Ryde.

Further, there are significantly more workers travelling to Ryde for work than workers that live in Ryde. Workers travelling to Ryde LGA for work are less likely to travel shorter distances to work (less than 10 km) (37.3 per cent vs 46.1 per cent) and more likely to travel longer distances to work (greater than 30 km) (12.2 per cent vs 2.7 per cent) than workers that live in Ryde LGA.

This suggests that there is a shortfall in housing for workers generally, in addition to the general shortfall in affordable housing. Given the high amount of longer distance travel to Ryde, this shortfall appears to extend to the Northern District generally.

In response, the Affordable Housing Policy puts forward a target of 5 per cent of new dwellings from 2016 to 2031 to be affordable housing dwellings.

5.3.1 Rental housing

Weekly rents for new bonds signed for properties in the Ryde LGA are shown in Table 20. Overall, the median and quartile rents are higher than greater Sydney, except for flats/units. This likely due to the relatively high supply of smaller, more affordable flats/units. The interquartile range in Ryde is similar to that of Greater Sydney, except for Flats/Units, the latter suggesting there is more price homogeneity and less dispersal in rental market for these dwelling types.

Table 20: Weekly Rents for New Bonds Ryde LGA and Greater Sydney - March Quarter 2019

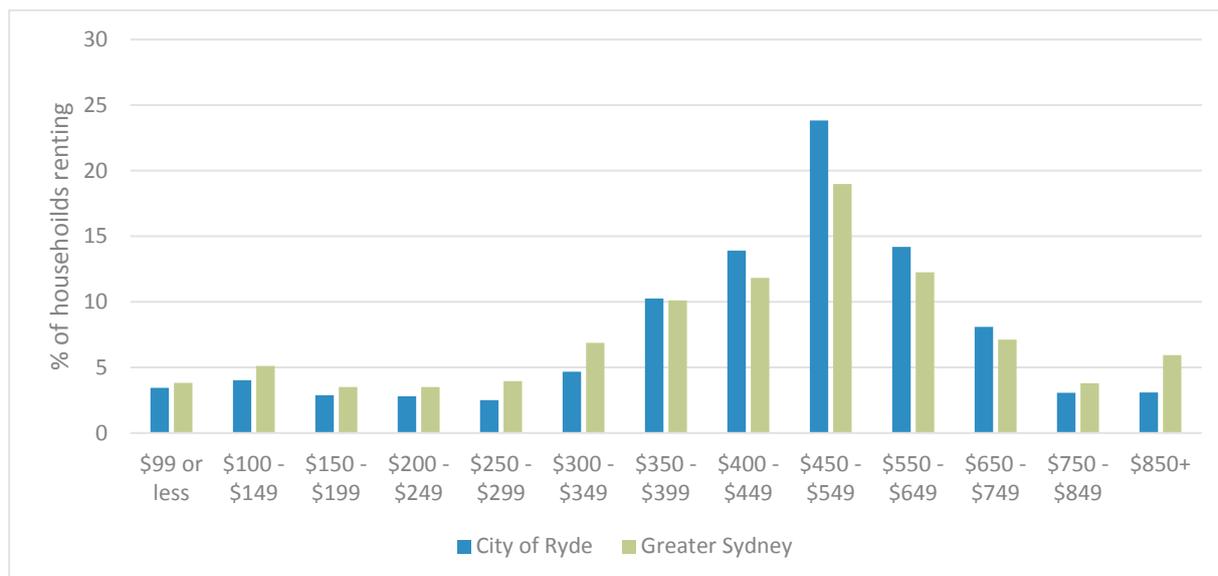
Dwelling type	First Quartile Weekly Rent for New Bonds		Median Weekly Rent for New Bonds		Third Quartile Weekly Rent for New Bonds	
	Ryde	Greater Sydney	Ryde	Greater Sydney	Ryde	Greater Sydney
Flat/Unit	\$420	\$440	\$480	\$540	\$570	\$650
Townhouse	\$384	\$350	\$600	\$570	\$700	\$750
House	\$548	\$440	\$660	\$550	\$800	\$720
Other	\$500	\$360	\$490	\$450	\$600	\$579
Total	\$430	\$430	\$500	\$530	\$600	\$670

Source: FACS 2019

Analysis of the weekly housing rental payments of households in the LGA of Ryde compared to Greater Sydney shows that there was a larger proportion of households paying high rental payments (\$450 per week or more), and a smaller proportion of households with low rental payments (less than \$250 per week).

Overall, 52.3 per cent of households were paying high rental payments, and 13.1 per cent were paying low payments, compared with 48.1 per cent and 16.0 per cent respectively in Greater Sydney.

Figure 43: Weekly Rental Payments Ryde LGA and Greater Sydney - 2016



Source: profile .id

5.3.2 Mortgaged housing

Analysing monthly housing loan repayments at the 2016 Census, there was a larger proportion of households paying high mortgage repayments (\$2,600 per month or more), as well as a larger proportion of households with low mortgage repayments (less than \$1,200 per month) in the Ryde LGA than the Greater Sydney area.

Figure 44: Monthly Mortgage Repayments, Ryde LGA and Greater Sydney - 2016



Source: profile .id

The dominant mortgage repayment quartile group for the Ryde LGA is the “highest” at 36.9 per cent in 2016, which is more than Greater Sydney (32.2 per cent). The lowest group, however, is the fastest growing with an increase of +430 households between the 2011 and 2016 Censuses, suggesting more affordable housing has become available in the LGA.

Table 21: Monthly mortgage repayment quartile groups – 2011 and 2016

Dwelling type Loan repayment quartile group	2011			2016			Change
	Number	%	Greater Sydney	Number	%	Greater Sydney	Greater Sydney
Lowest group	2,501	21	19.8	2,072	18.7	19.0	+430
Medium lowest	1,910	16	20.9	2,026	18.3	21.8	-116
Medium highest	2,926	25	27.1	2,777	25.1	27.3	+148
Highest group	4,294	36	32.2	4,178	37.8	31.8	+115
Total households with stated mortgage repayments	11,633	100	100.0	11,055	100	100.0	+578

Source: profile .id

The median mortgage repayment for Ryde in 2016 was \$505 per week, which was slightly above that of Greater Sydney at \$495 per week. The highest median mortgage repayment areas appeared to be located closer to the Parramatta river, and were:

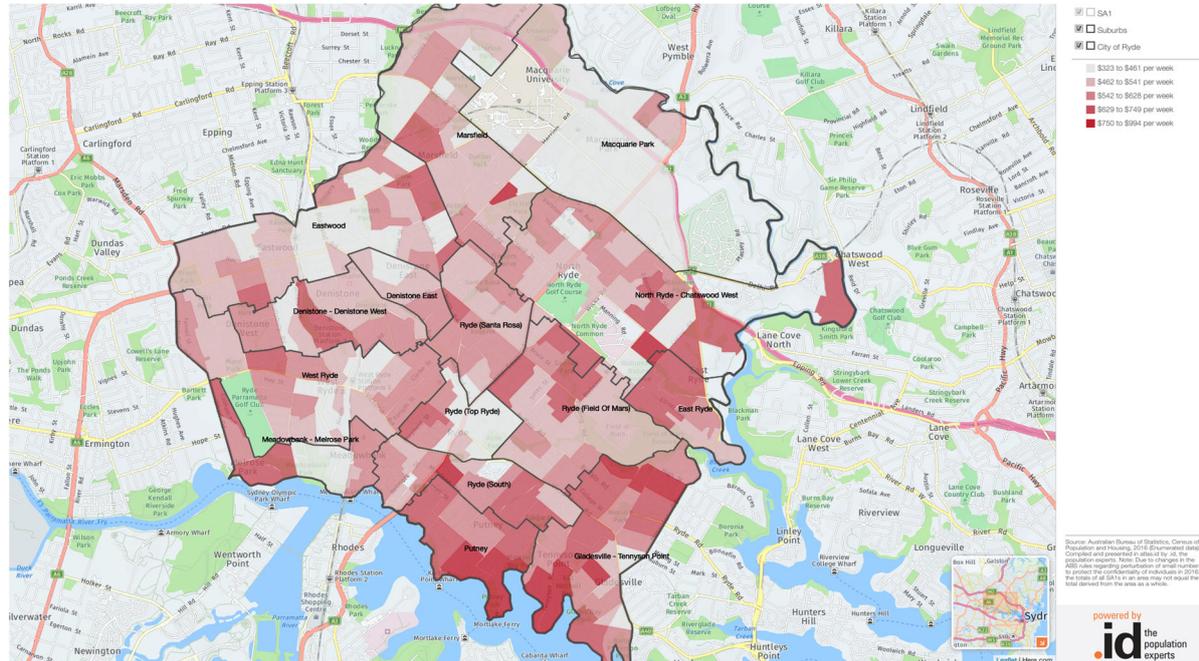
- Putney: \$795 per week
- East Ryde: \$679 per week
- Gladesville/Tennyson Point: \$613 per week.

The lowest median mortgage areas (which were still well above State averages) were:

- Macquarie Park: \$468 per week

- West Ryde: \$473 per week
- Eastwood: \$477 per week.

Figure 45: Median Weekly Mortgage Repayments, 2016



Source: profile .id

Note: Figures based on enumerated population

5.3.3 Housing Stress

.id defines Housing Stress using the NATSEM (National Centre for Social and Economic Modelling) model. Under this model households are identified as being in stress if they fall within the lowest 40 per cent of equivalised incomes (income adjusted by ABS using equivalence factors to remove the effect of household size and composition on income nationally), who are paying more than 30 per cent of their usual gross weekly income on mortgage or rent repayments. More specifically, a household is defined as being with housing stress when it:

- is in the bottom two quintiles (40 per cent) of equivalent disposable household income distribution (in the respective state or territory); and
- has a housing cost (rent plus mortgage minus rent assistance) that represents 30 per cent or more of its disposable income (exclusive of rent assistance)¹².

Mortgage stress and rental stress are defined using the same criteria but pertain only to households of those occupancy types.

Overall, 12.1 per cent of Ryde LGA households were experiencing housing stress compared with 11.8 per cent in greater Sydney. The level of housing stress varied across the LGA. More detail on this is provided in the subsequent sections.

¹² (Phillips, Chin, & Harding, 2006, p. 3)

Table 22: Percentage Overall Housing Stress, Mortgage Stress and Rental Stress, Ryde LGA 2016

Area	Mortgage Stress (%)	Rental Stress (%)	Housing Stress (%)
Denistone - Denistone West	6.1	13.3	5.9
Denistone East	10.4	24.0	6.7
East Ryde	2.8	10.5	2.9
Eastwood	11.4	36.1	15.7
Gladesville - Tennyson Point	2.7	17.5	6.8
Macquarie Park	8.4	23.9	16.5
Marsfield	11.4	25.9	13.2
Meadowbank - Melrose Park	5.1	23.0	14.2
North Ryde - Chatswood West	5.5	20.0	8.0
Putney	3.8	11.1	3.3
Ryde (Field Of Mars)	6.3	19.4	9.9
Ryde (Santa Rosa)	7.5	23.4	10.3
Ryde (South)	7.0	23.4	13.0
Ryde (Top Ryde)	10.6	23.3	15.6
West Ryde	7.8	26.8	14.0
Ryde LGA	9.6	25.5	12.1
Greater Sydney	10.3	26.4	11.8

Source: profile .id

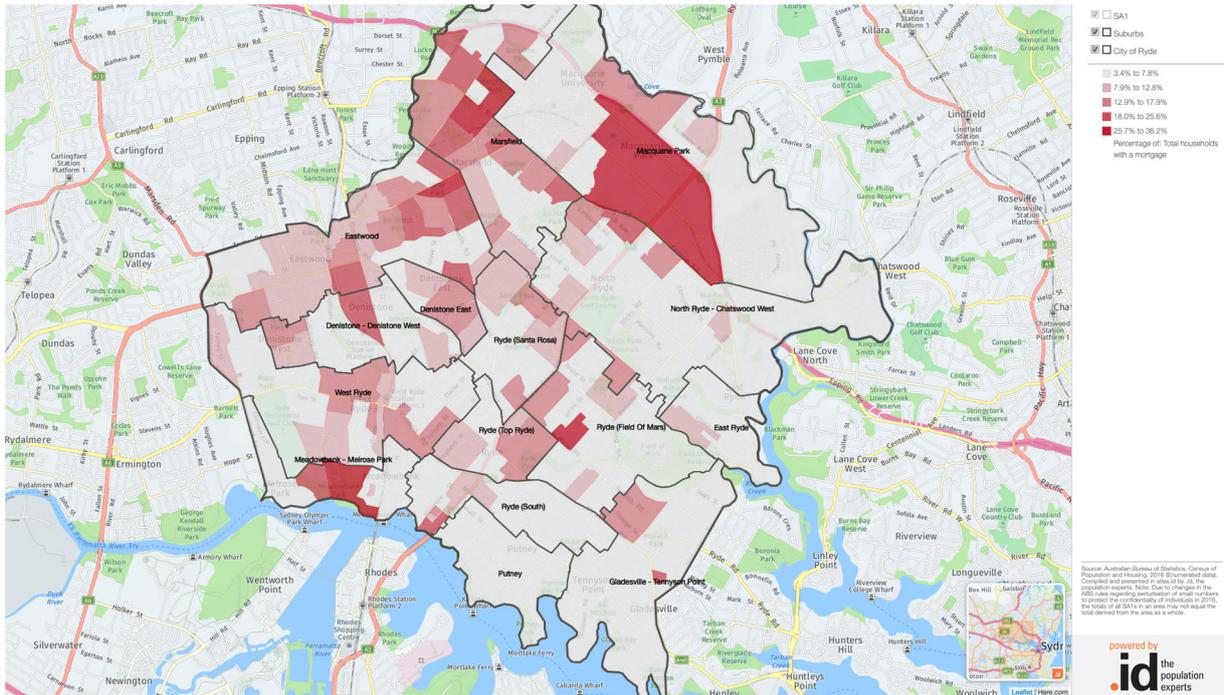
Approximately 9.6 per cent of households experienced mortgage stress in Ryde LGA, which is less than Greater Sydney at 10.3 per cent.

The geography of households experiencing mortgage stress varies across the smaller areas of the LGA with 2.7 per cent in Gladesville/Tennyson Point, and 11.4 per cent in Eastwood and Marsfield. The spatial distribution of mortgage stress is shown in Figure 46: Households in Mortgage Stress, 2016. There are concentrations of household n mortgage stress around Eastwood, Marsfield, Macquarie Park and Meadowbank.

Approximately 25.5 per cent of households which rented experienced rental stress in Ryde City, which is slightly less than Greater Sydney at 26.4 per cent. Like Mortgage Stress, there is variation across the smaller areas of the LGA - with a significant high of 36.1 per cent in Eastwood, and 10.5 per cent in East Ryde and 11.1 per cent in Putney, the latter two being reflective of high median household incomes and relatively low levels of rental housing in these areas.

This spatial distribution of households in rental stress is shown in Figure 47. The map indicates variation across the city, with pockets in West Ryde, Eastwood, Marsfield and Melrose Park experiencing significantly high levels of rental stress.

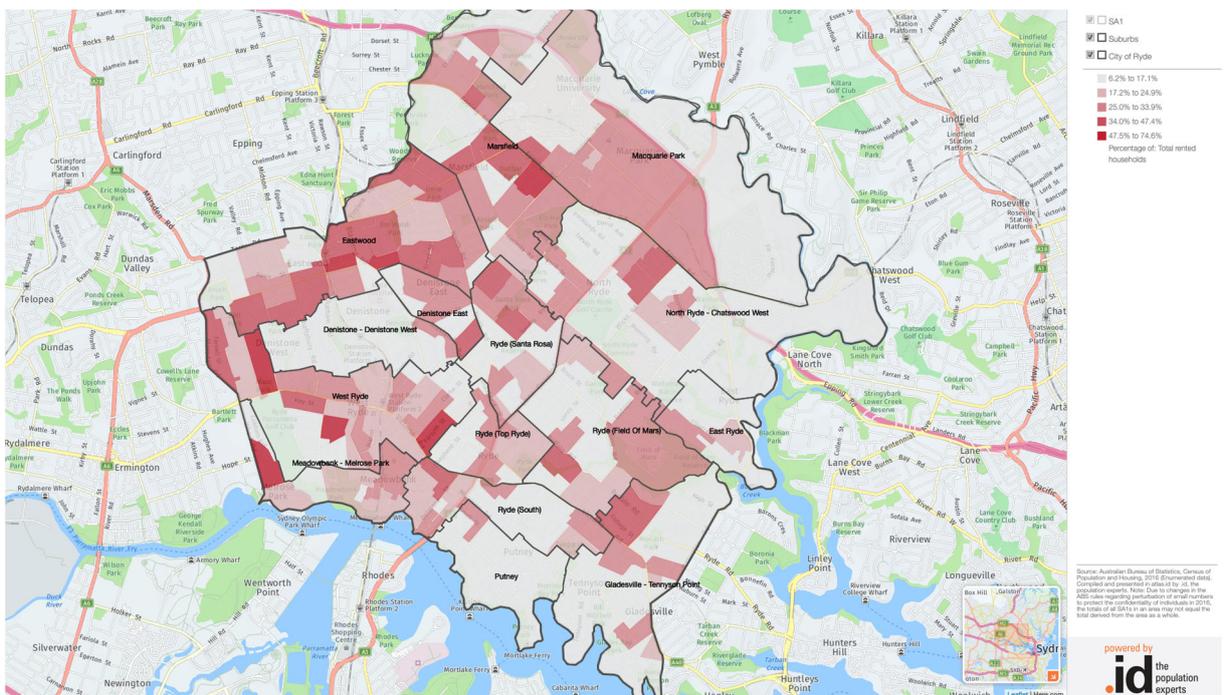
Figure 46: Households in Mortgage Stress, 2016



Source: profile .id

Note: Figures based on enumerated population

Figure 47: Households in Rental Stress, 2016



Source: profile .id

Note: Figures based on enumerated population

5.3.4 Homelessness

Homelessness in Australia is recorded by the ABS's *Census of Population and Housing: Estimating Homelessness* (cat 2049.0). It considers several elements of 'home' such as security, stability, privacy, safety or control. Homelessness is considered a lack of one or more of these elements, with the specific ABS definition being:

When a person does not have suitable accommodation alternatives, they are considered homeless if their current living arrangement:

- *is in a dwelling that is inadequate; or*
- *has no tenure, or if their initial tenure is short and not extendable; or*
- *does not allow them to have control of, and access to space for social relations.*

The ABS has estimated Ryde's homeless population to be 223 persons in 2011 and 337 persons in 2016. Detailed information for Ryde is not available for 2016, with the most specific data being available at the combined Ryde – Hunters Hill area. The bulk of the homeless population in the Ryde – Hunters Hill area lived in crowded dwellings (609 persons or 80.6 per cent). The remaining homeless population (138 or 18.3 per cent) generally lived in temporary accommodation such as temporarily staying with another houses (i.e. couch-surfing), in boarding houses, or supported accommodation. A small proportion (9 or 1.2 per cent) lived in improvised dwellings.

Table 23: Homeless population in Ryde – Hunters Hill at 2016 Census (SA3)

Type of homelessness	Count	Proportion
Persons living in improvised dwellings, tents, or sleeping out	0	0.0%
Persons in supported accommodation for the homeless	34	4.5%
Persons staying temporarily with other households	62	8.2%
Persons living in boarding houses	42	5.6%
Persons in other temporary lodgings	0	0.0%
Persons living in 'severely' crowded dwellings	250	33.1%
Persons living in other crowded dwellings	359	47.5%
Persons in other improvised dwellings	9	1.2%
Persons who are marginally housed in caravan parks	0	0.0%
Total	756	100%

5.4 Future housing demand

5.4.1 Population and dwelling projections

This section provides projected changes in population, households and dwellings. The projections are sourced from forecast .id and DPIE 2016 projections.

It is noted that DPIE has released new projections in December 2019. Given that the District and Region plan are informed by the 2016 projections, including the 5-year LGA and District housing targets and the 20-year District housing targets, this Strategy continues to use the 2016 projections to inform future housing demand. This will assist in maintaining a baseline between LGAs and the District targets for the 10 and 20-year targets. It is recommended that the 2019 projections are used to inform the five-year review process as part of an ongoing monitoring exercise.

The forecast .id and DPIE 2016 projections are based on 2011 Census data but are developed based on different methods. In summary, forecast .id is forecast based on analysing local level data to determine future growth, while DPIE projections are based on historical trends and attributing State-wide growth down to the local level, taking into consideration planned urban growth at the time of preparation.

Projected population, household and dwellings from 2016 to 2036 are provided at Table 24. They suggest that between 20,191 and 22,000 additional dwellings will be needed between 2016 and 2036.

Table 24: Summary of population, household and dwelling projections

	DPIE projections	Forecast .id forecast
2016 population	119,950	121,807
2036 population	171,650	167,109
Population increase	51,700	45,302
2016 household size	2.56	2.62
2036 household size	2.50	2.50
2016 households	46,050	45,543
2036 households	66,700	61,419
Households increase	20,650	15,876
2016 dwellings	49,000	46,664
2036 dwellings	71,000	66,855
Dwelling increase	22,000	20,191

Source: DPIE 2016, forecast .id

While DPIE projects a lower initial 2016 population than forecast .id, it forecasts a higher 2036 population, number of households and required number of dwellings. This DPIE projection aligns with the District Plan projected population increase for the Ryde LGA.

Both sources assume a 2036 average household size of approximately 2.5 people. Household size in Ryde LGA is declining, consistent with the national trend. The declining household size in combination with the projected growth in population means that there is expected to be a significant increase in the number of households living in the LGA. Figure 48 shows forecast .id's projected increase in population an associated increase increases in the number of households.

Table 24 provides additional detail on the anticipated housing delivery in five-year increments. An adjustment has been made to the 2016 to 2021 DPIE projection, which has been changed from 6,250 to 7,600, the Ryde LGA target as outlined in the District plan. This amount has been brought forward from the 2021 to 2016 period, reflecting a normalisation in the overall dwelling demand.

This view of the projection shows that the main difference is that forecast .id anticipates a decrease in demand for additional dwellings over time. This general trend is also anticipated in the DPIE projections, but at a lower pace. However, the trend of reduced annual growth is agreed upon in these projections.

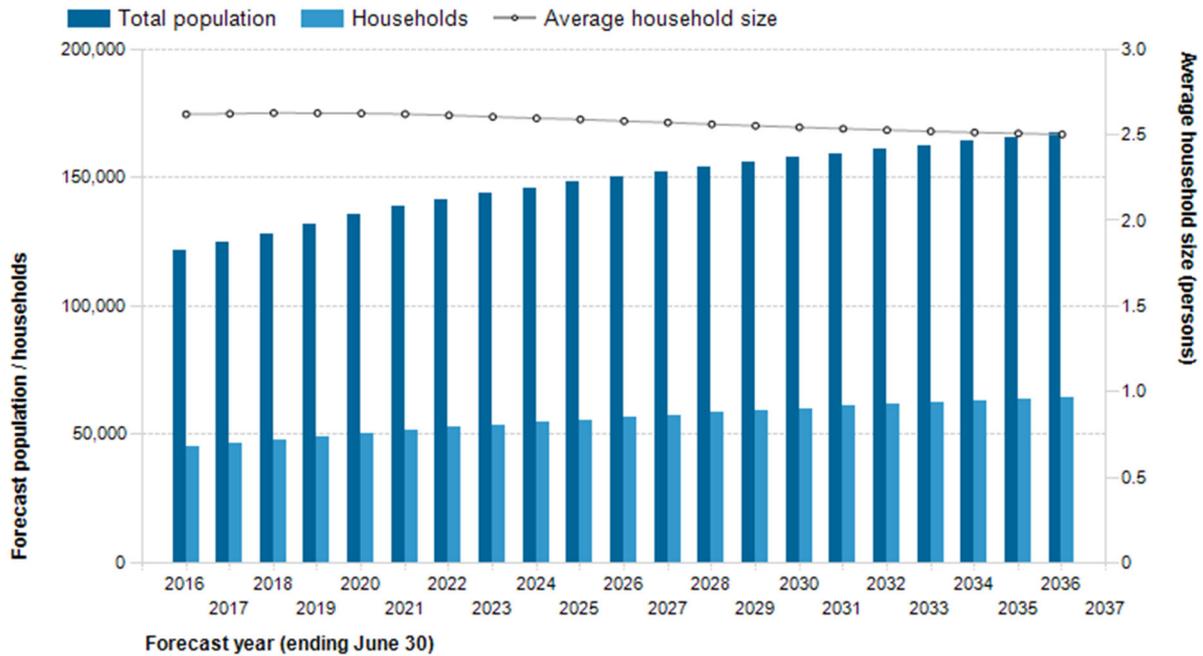
Table 25: Summary of dwelling projections in five-year increments

	2016 to 2021*	2021 to 2026	2026 to 2031	2031 to 2036	Total
Forecast .id	7,600	4,367	4,416	3,848	20,191
DPIE projection	7,600	4,300	5,100	5,000	22,000

Source: DPIE 2016, forecast .id

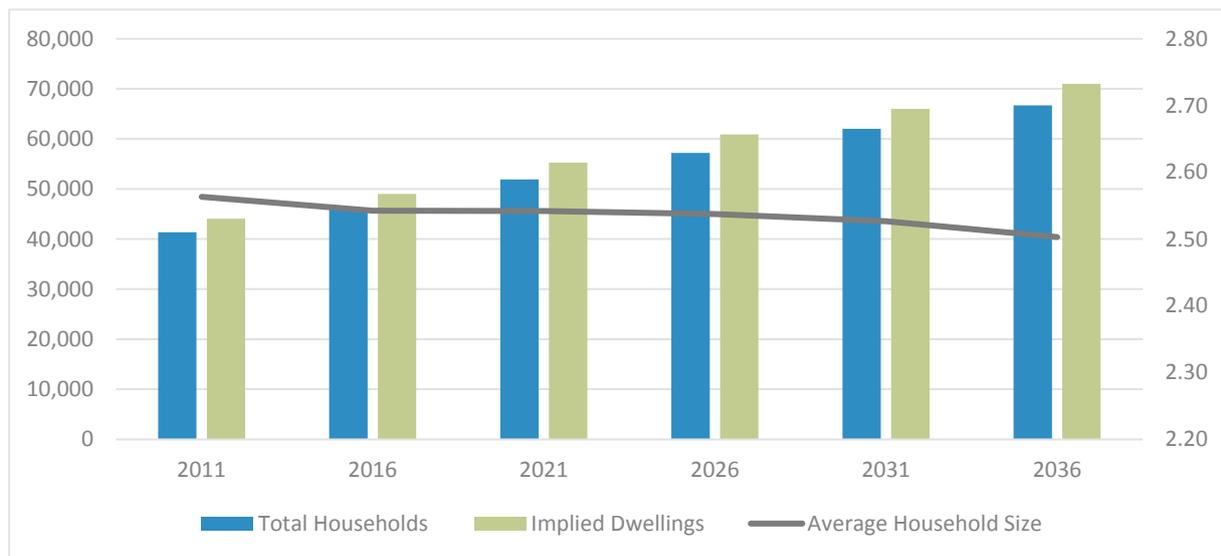
Note: * Forecast .id projection of 6,640 and DPIE projection of 6,250 additional dwellings has been replaced with 7,600 additional dwellings for 2016 to 2021 to reflect the District Target, with 2021 to 2026 project revised downward to compensate.

Figure 48: Projected population and households in Ryde LGA (forecast id), 2016-2036



Source: Population and household forecasts prepared by .ID, 2017

Figure 49: Projected households and dwellings in Ryde LGA (DPIE), 2011-2036



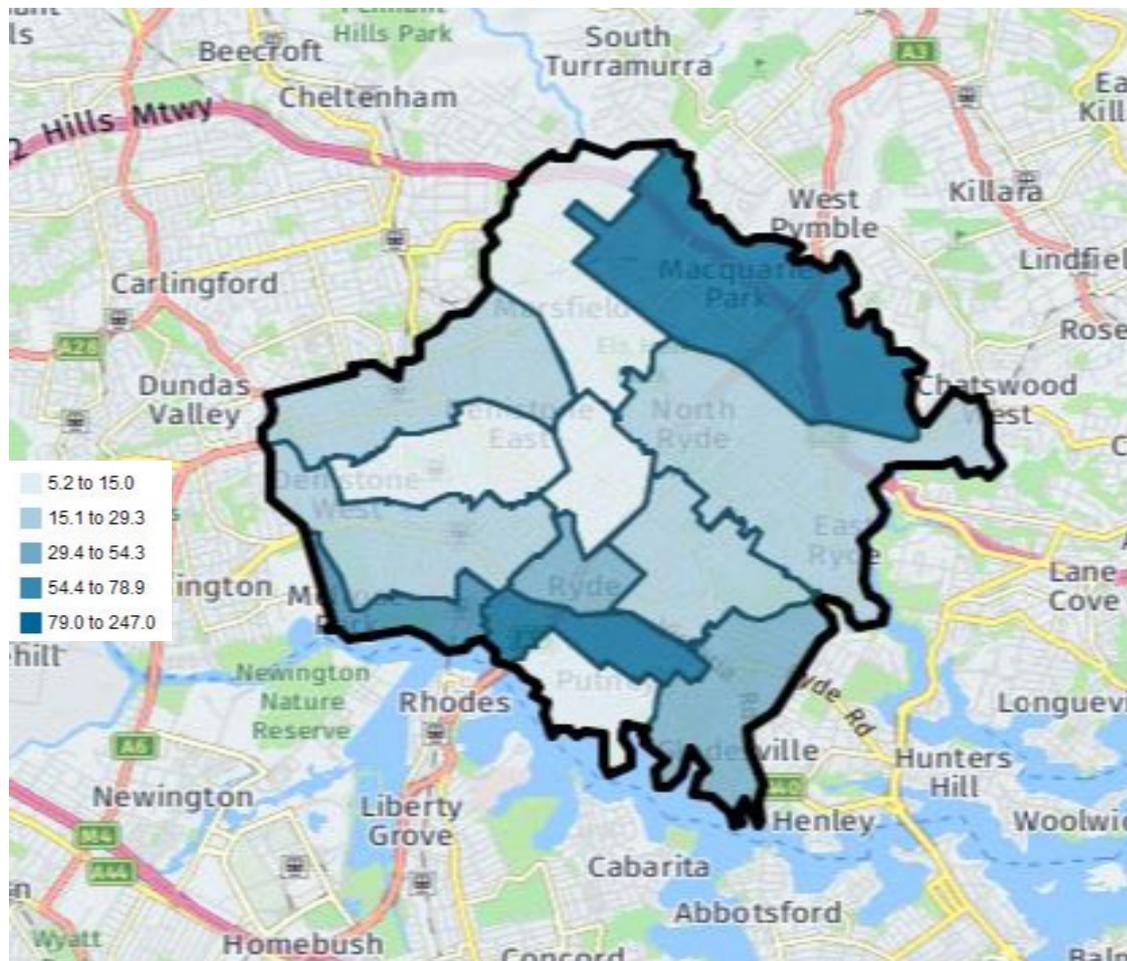
Source: DPIE 2016

While DPIE and forecast .id anticipate different rates of population growth and household sizes, they project similar increases in the number of dwellings in the LGA (22,000 and 20,191, respectively). Both forecasts also include a buffer for unoccupied dwellings above the number of dwellings required by resident households. The 2036 DPIE buffer is approximately 6.5 per cent, with the forecast .id buffer being approximately 8.9 per cent.

Given the closer alignment between the 2016 Census actual and forecast .id projected household and dwelling count, and the more conservative 2036 unoccupied dwelling assumption, the forecast .id projection are used to estimate 2036 dwelling requirements by dwelling type in the following section.

Forecast .id’s estimate for and the anticipated distribution of dwelling growth from 2016-2021 is indicated in Figure 50. This largely aligns with housing development initiatives in the Macquarie Park, North Ryde and Meadowbank areas.

Figure 50: Forecast dwelling increase 2016 to 2021



Source: Population and household forecasts prepared by .ID, 2017

5.4.2 Projected dwelling types

HillPDA has examined housing delivery trends in the Ryde LGA using Census data, combined with the forecasted dwelling growth detailed above. The analysis of trends and forecasts has been used to inform inputs and assumptions used in the HillPDA Housing Propensity Model to project demand for housing the LGA.

Approach

The HillPDA Housing Propensity Model projects housing demand by dwelling type. The projections are based on characteristics of occupied dwellings and the resident households to determine the proportional increase in dwelling types over time.

- Step 1 Exclude other households and dwelling structure not stated from count of occupied dwellings by household composition
- Step 2 Convert occupied dwellings by family composition to proportion of total dwelling stock
- Step 3 Calculate the annual proportional change between 2006 and 2016
- Step 4 Apply this annual change to the 2016 census proportion (2016-2036)
- Step 5 Apply these forecast proportion to the corresponding dwelling projection year

Population projections prepared by forecast id. have been used as a base.

Dwelling type projections

Trends in dwelling type for different household types are examined below in Table 26 and Table 27. It should be noted that the type of housing that a household chooses will in part be influenced by the type of housing that is available and other factors such as costs and proximity to work and services. The groupings of housing type align with profile .id method identified in in Section 5.1.1.

Table 26: Change in dwelling type by household type,2006 to 2016

Household Type	Separate house	Medium density	High density	Other dwelling	Total
Couple only	-416	-85	1,513	2	1,013
Couple with children	-510	416	1,194	-5	1,096
Single parent	-208	39	257	1	89
Other family households	17	5	109	2	133
Lone person	-453	-153	593	6	-8
Group	42	-107	341	10	286
Total	-1,528	115	4,006	16	2,609

Table 27: Proportional change in dwelling type by household type, 2006 to 2016

Household Type	Separate house	Medium density	High density	Other dwelling
Couple only	-1.8%	-0.5%	3.3%	0.0%
Couple with children	-2.9%	0.7%	2.7%	0.0%
Single parent	-0.9%	0.0%	0.5%	0.0%
Other family households	0.0%	0.0%	0.2%	0.0%
Lone person	-1.6%	-0.8%	0.9%	0.0%
Group	0.0%	-0.3%	0.7%	0.0%
Total	-7.2%	-1.0%	8.2%	0.0%

Source: ABS 2006,2011 and 2016 Census, HillPDA

Applying the trend in dwelling mix to the projected dwellings reveals that there is likely to be a significant change in the dwelling mix in the LGA in the future, with apartments set to become the most common type of accommodation in the LGA in 2026, with more units than separate houses. This is an ongoing progression of trends that notably, as of the 2011 Census, led to medium and high-density dwellings combined outnumbering separate houses.

Figure 51: Projected dwelling mix in Ryde LGA 2016-2036

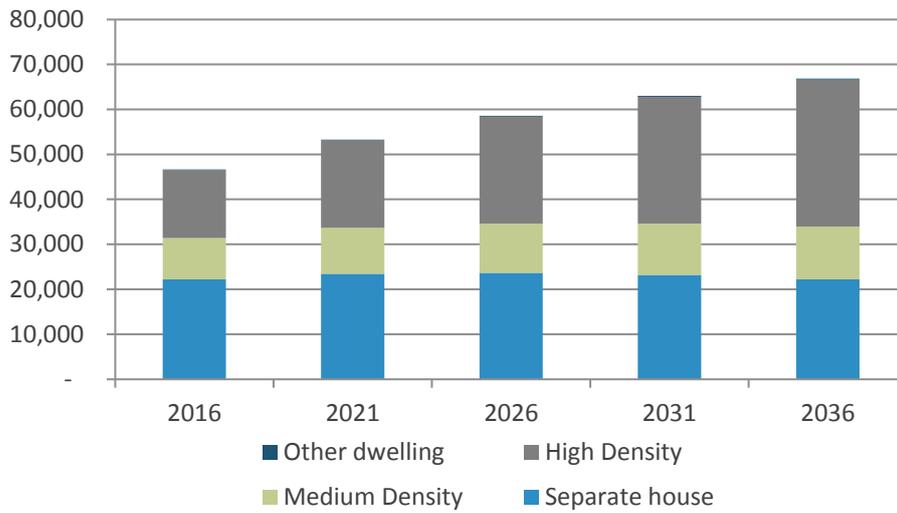
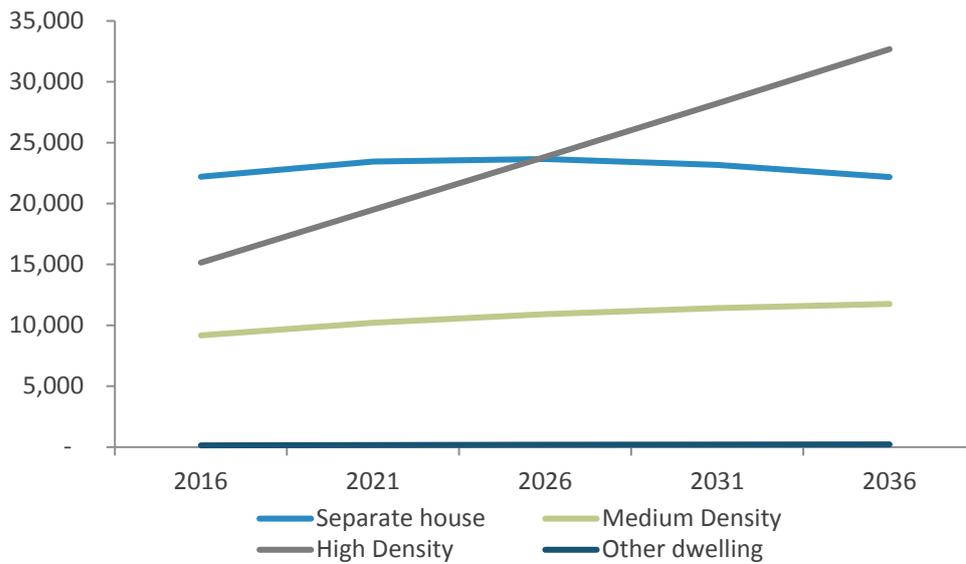


Figure 52: Projected new dwellings in Ryde LGA, 2016-2036)



Source: HillPDA

The projected dwelling demand is indicated in Table 28.

Table 28: Dwelling projections, by year, by housing type

	Separate house	Medium Density	High Density	Other dwelling	Total
2016	22,206	9,175	15,149	135	46,664
2021	23,445	10,204	19,494	160	53,304
2026	23,660	10,913	23,835	182	58,591
2031	23,174	11,410	28,220	203	63,007
2036	22,181	11,761	32,690	223	66,855
Increase	-24	2,586	17,542	87	20,191
% increase	-0.1%	28.2%	115.8%	64.6%	43.3%

Source: HillPDA

5.4.3 Implications

This section has considered the anticipated demand for housing projected by DPIE and forecast .id and the implication of housing trends on housing diversity in the future. The section represents a continuation of existing policy with respect to housing provision and diversity. The following implications are noted:

- The likely demand for additional housing between 2016 and 2036, based on 2016 forecast .id and DPIE projections is between 20,000 to 22,000 dwellings
- The five-year target for the Ryde LGA in 7,600 dwellings (see Section XX)
- The subsequent five-year dwelling growth are between 4,300 and 5,100 dwellings, representing steady dwelling delivery after the 2016 to 2021 target period
- Based on recent trends:
 - High density developments are anticipated to provide about 17,500 additional dwellings, or approximately 87 per cent of additional dwellings
 - Medium density developments are anticipated to provide about 2,600 additional dwellings, or approximately 13 per cent of additional dwellings
 - Separate house development is anticipated to stagnate, representing limited opportunities to build new housing stock of that type in the Ryde LGA

DEVELOPMENT POTENTIAL

6.0 DEVELOPMENT POTENTIAL

The LGA's capacity for residential development in existing residential zones and selected centres has been examined. The analysis focuses on

- The development potential in proximity to town centres
- The development in low-density residential areas.

6.1 Development potential near centres

Locating housing near centres has a number of benefits. Locating new housing in centres will:

- Support local businesses by increasing the population in the local retail catchment
- Minimise the need for car travel and ensure parking rates reflect the relative accessibility of each centre, thereby reducing traffic congestion and environmental impacts of car travel
- Maximise resident's access to jobs, services, shops, recreation and leisure activities
- Make efficient use of existing infrastructure minimising the need for construction of new services and facilities
- Generate active centres interesting and vibrant centres that people enjoy visiting and spending time in
- Providing housing that supports centre functions.

6.1.1 Approach

An assessment of the development potential in centres in Ryde LGA has been undertaken. It considers development currently in the pipeline and potential for development of underutilised land.

Development potential has been estimated as follows:

- Identify and exclude government owned land such as Council buildings, schools, reserves and the like. While government owned land may be developed for housing in the future, housing development is not identified as its current purpose.
- Identify and exclude sites already in the development pipeline as the development potential for these lots is accounted for as part of the development pipeline.
- Calculate theoretical developable area based on city blocks (e.g. bound by streets or other logical features)
- Calculate the number of residential floors potentially achievable as mixed use development based on height controls and multiply against the theoretical developable area
- Divide the theoretical developable area by 100 m², representing the average GFA dedicated to a single apartment
- Calculate developable area as a range:
 - Low Range: 20 per cent of dwellings are achieved
 - High Range: 50 per cent of dwellings are achieved.

6.1.2 Centres

The capacity for additional dwellings in town centres was examined for each centre. The areas examined were determined in consultation with Council and are indicated below.

Ryde contains several main town centres that provide a mix of residential, retail and business services. This section examines the built form, amenity and characteristics in the following centres:

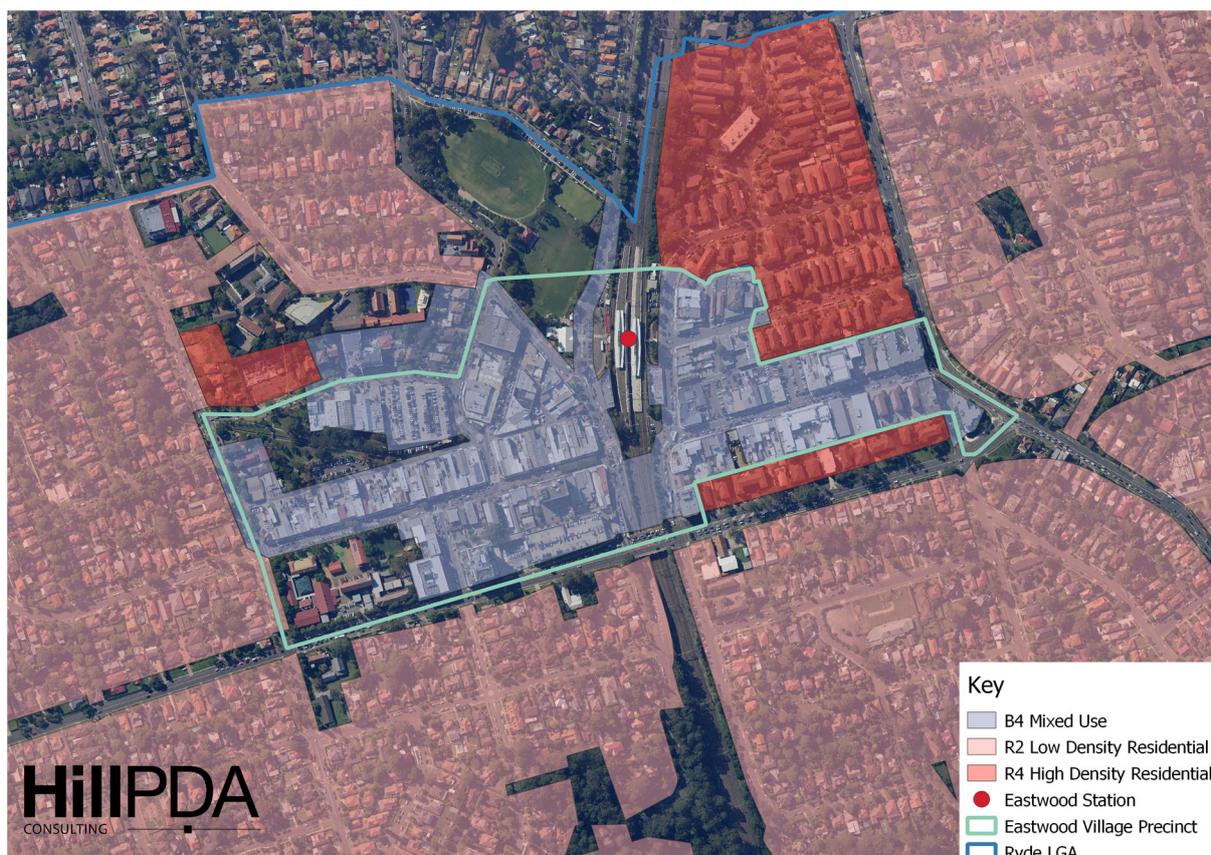
- Eastwood Town Centre
- West Ryde
- Meadowbank
- Ryde Town Centre
- Gladesville
- Macquarie University/ Herring Road Station Priority Precinct
- North Ryde Station Priority Precinct

6.1.2.1 Eastwood Town Centre

Eastwood Town Centre is located along the T9 rail line in northwest Ryde, north of Rutledge Street. The centre is bisected by the T9 rail line, with limited pedestrian access through Eastwood Station and Rutledge Street.

The centre is predominantly zoned as a B4 Mixed Use area, largely characterised by two storey buildings with ground level retail uses. Uses above ground level are mixed between commercial and residential. Where residential uses were identified, they were limited to one or two units in a building. Denser residential uses are found along Rutledge Street, with recent redevelopments at the intersection with Trelawney Street.

Figure 53: Eastwood Town Centre



The area directly to the northeast of Eastwood is zone R4 High Density Residential, with a maximum height of 11.5 m and FSR of 1:1. The built form in this area is predominantly three to four store residential flat buildings with ground level storage and car parking. Buildings generally range from six to twenty units. Recent development has been focused on the periphery of the centre, involving the consolidation of multiple lots to deliver a larger built form.

Amenities in the area include:

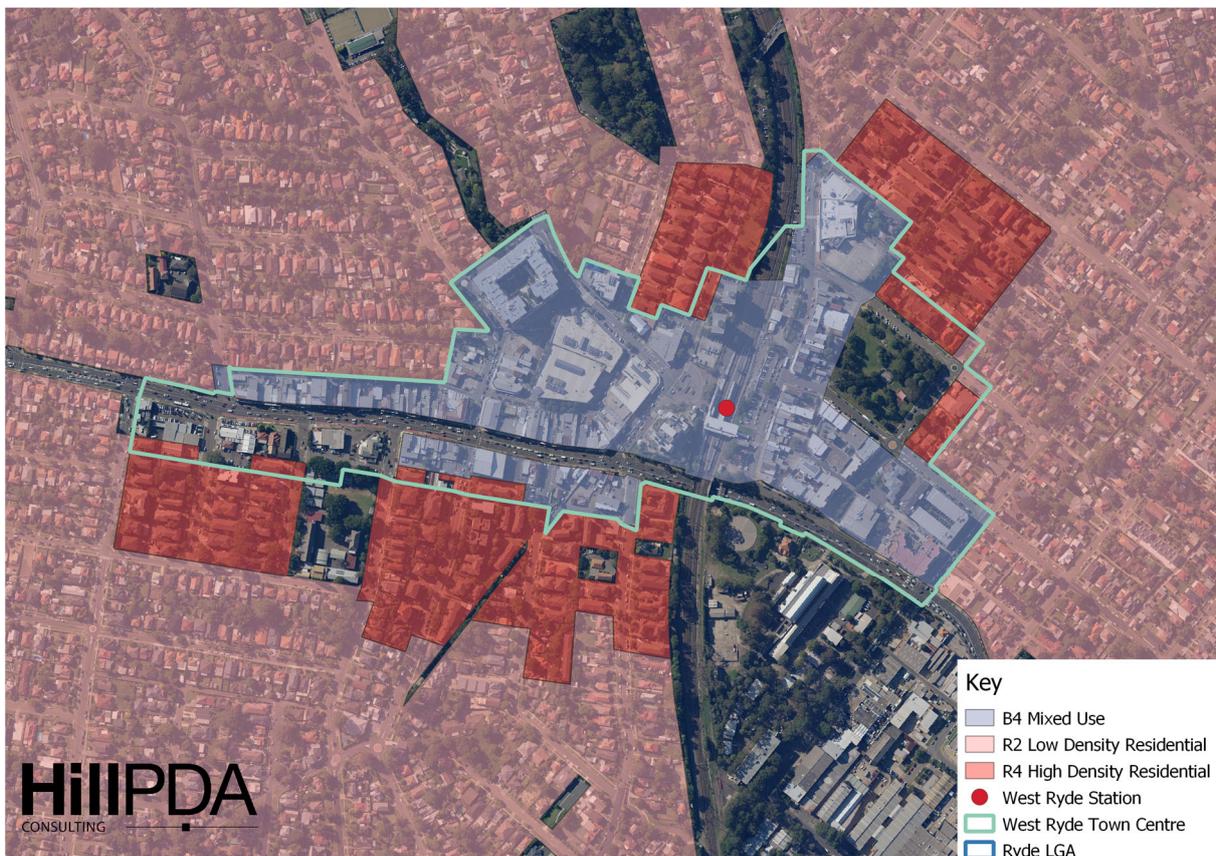
- Eastwood Station and associated bus interchange
- two major supermarkets
- several specialty markets
- a public school
- Glen Reserve
- a community hall
- a library
- and a range of restaurant/café, retail and services.

6.1.2.2 West Ryde

West Ryde is located along the T9 rail line and Victoria Road in southwestern Ryde. The centre is bisected by these features, with limited pedestrian access through West Ryde Station. While there is no direct pedestrian access via Victoria Road, a pedestrian path connects West Parade to Ryedale Road.

The centre is predominantly zoned as a B4 Mixed Use, generally consisting of fragmented two storey buildings alongside Victoria Road and the eastern side of West Ryde Station. Ground floor uses across the centre are typically retail or business services. Residential uses are concentrated in shop top housing in the north-western ‘Coles Urban Village’ (approximately seven storeys), an approximately eight storey building to the southwest of West Ryde Station, and a series of three to six storey buildings to the southeast of the centre near Anzac Avenue. The remainder shop top housing in the centre is distributed amongst the fragmented two storey building stock.

Figure 54: West Ryde Centre



Residential uses outside of the centre are distributed between separated houses to the northwest and east, and three to four storey residential flat buildings to the south and north. The residential flat buildings range between approximately twelve and twenty units, with ground floor parking.

Amenities in the area include:

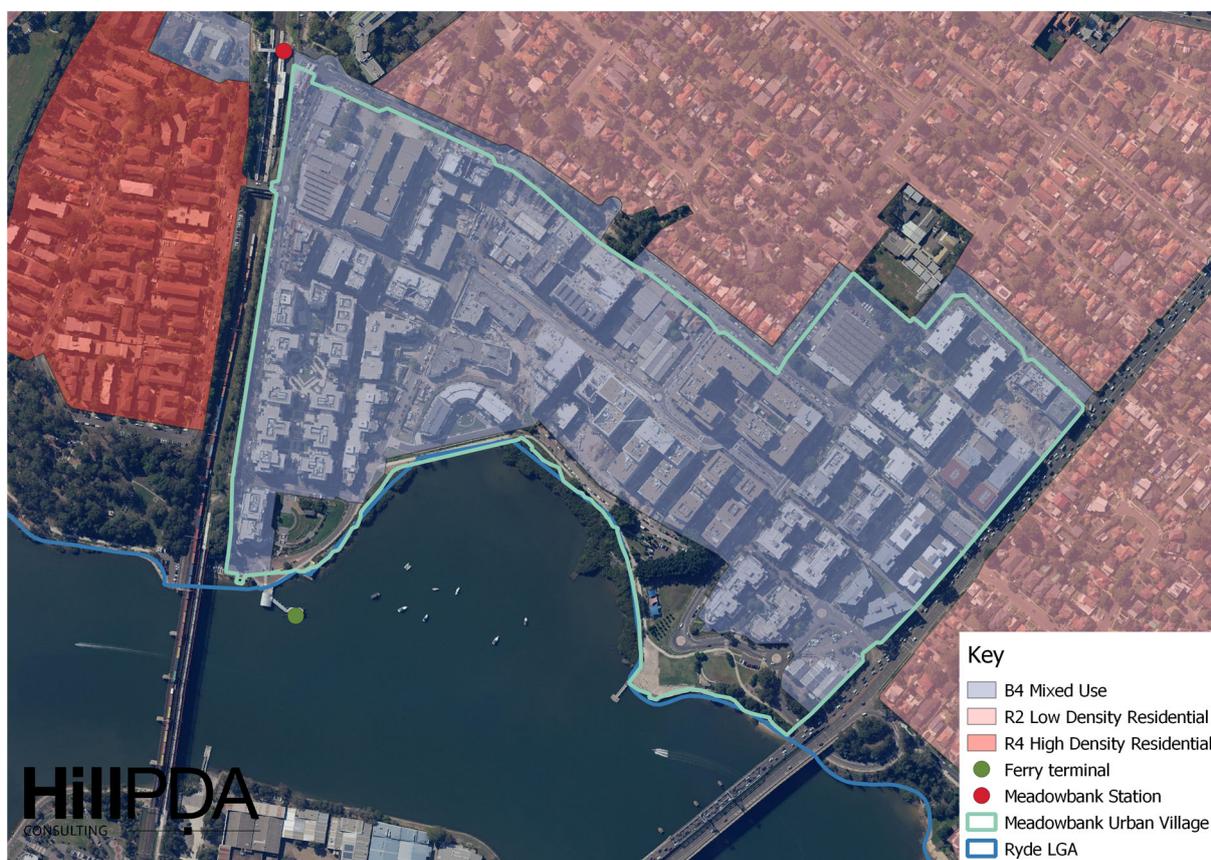
- West Ryde Station and associated bus interchange
- two major supermarkets
- Anzac Park
- a range of restaurant/café, retail and services.

6.1.2.3 Meadowbank

Meadowbank is located between the T9 rail line and Church Street, along the Parramatta River in southern Ryde. It is generally self-contained, with access to the regional road network via Church Street to the east, and the rail network via Meadowbank Station to the northwest. However, these routes also isolate the centre from the surrounding area. Meadowbank Wharf to the southwest of the centre provides access to the Parramatta and Sydney CBDs.

The centre is almost entirely zoned B4 Mixed Use, with the exception of the waterfront, which is zoned RE1 Public Recreation. The built form of Meadowbank is consistently between five and 15 storeys, with commercial and service uses at the ground level and shop top housing above ground level. Interspersed between the buildings are a mixed of hardscaped and landscaped plazas.

Figure 55: Meadowbank centre



To the west of the centre, across the T9 rail line, is a cluster of three to four storey residential flat buildings. Residential uses to the north and east of the centre are generally separate houses with occasional dual occupancies.

Amenities in the area include:

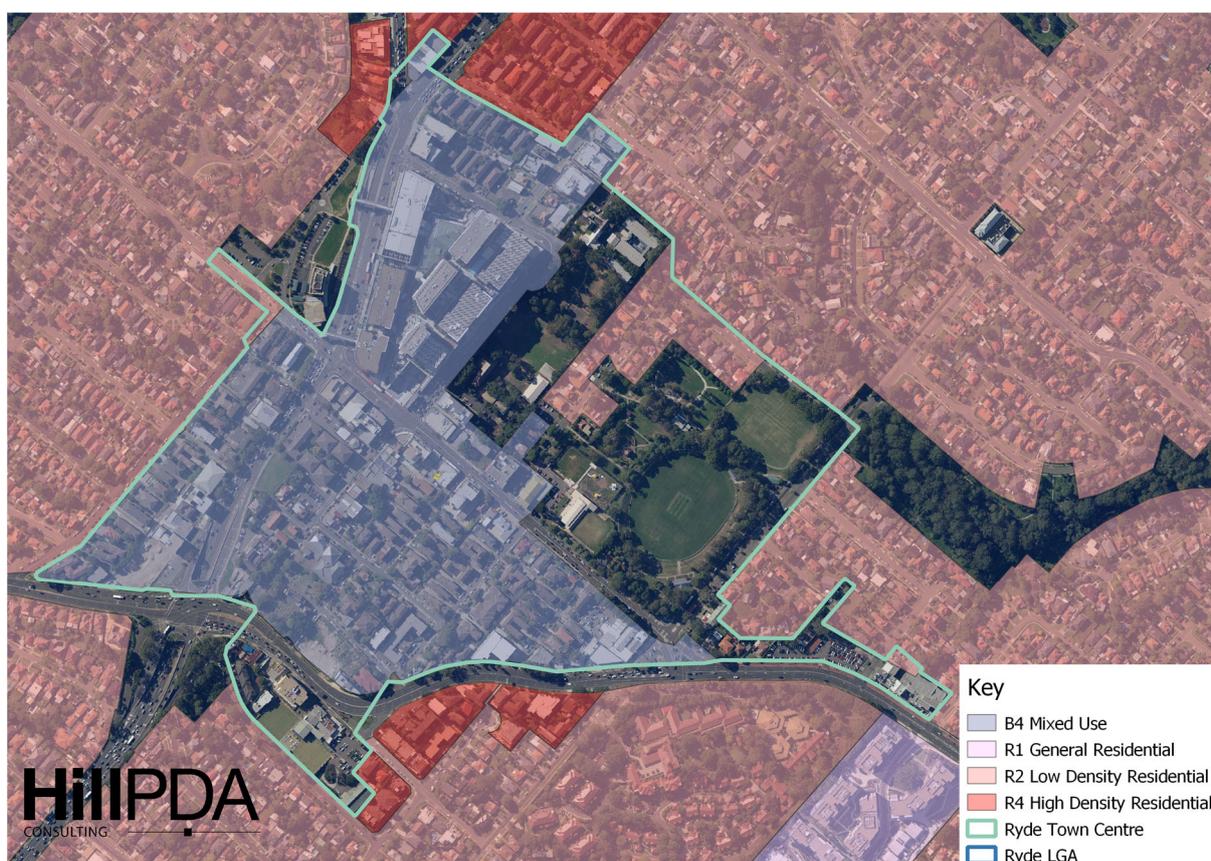
- Meadowbank Station
- TAFE NSW Meadowbank
- a supermarket
- multiple parks along the riverfront
- a primary school
- a library
- a community centre
- a range of restaurant/café, retail and services.

6.1.2.4 Ryde Town Centre

Ryde Town Centre is located along Develin Street, north of Victoria Road, in central Ryde. It is bisected by Blaxland Road, which separates the Top Ryde City Shopping Centre from the remainder of the centre. Regional access to Ryde Town Centre is limited to buses and private vehicles via Devlin Street/Lane Cove Road and Victoria Road. Pedestrian access to the south and west of the centre is restricted, with limited access across intersections and bridges, such as those at Top Ryde.

The entirety of the residentially zoned land in the centre is B4 Mixed Use, however mixed use development is typically contained to Top Ryde. With the exception of recent development along Victoria Road and commercial uses at the intersection of Church Street and Blaxland Road, the southern portion of the centre is generally three to four storey residential flat buildings.

Figure 56: Ryde Centre



Residential uses around the centre are a mix of separate houses, dual occupancies and villa developments, with clusters of residential flat buildings to the north and south. To the southeast of the centre is a large seniors living development.

Amenities in the area include:

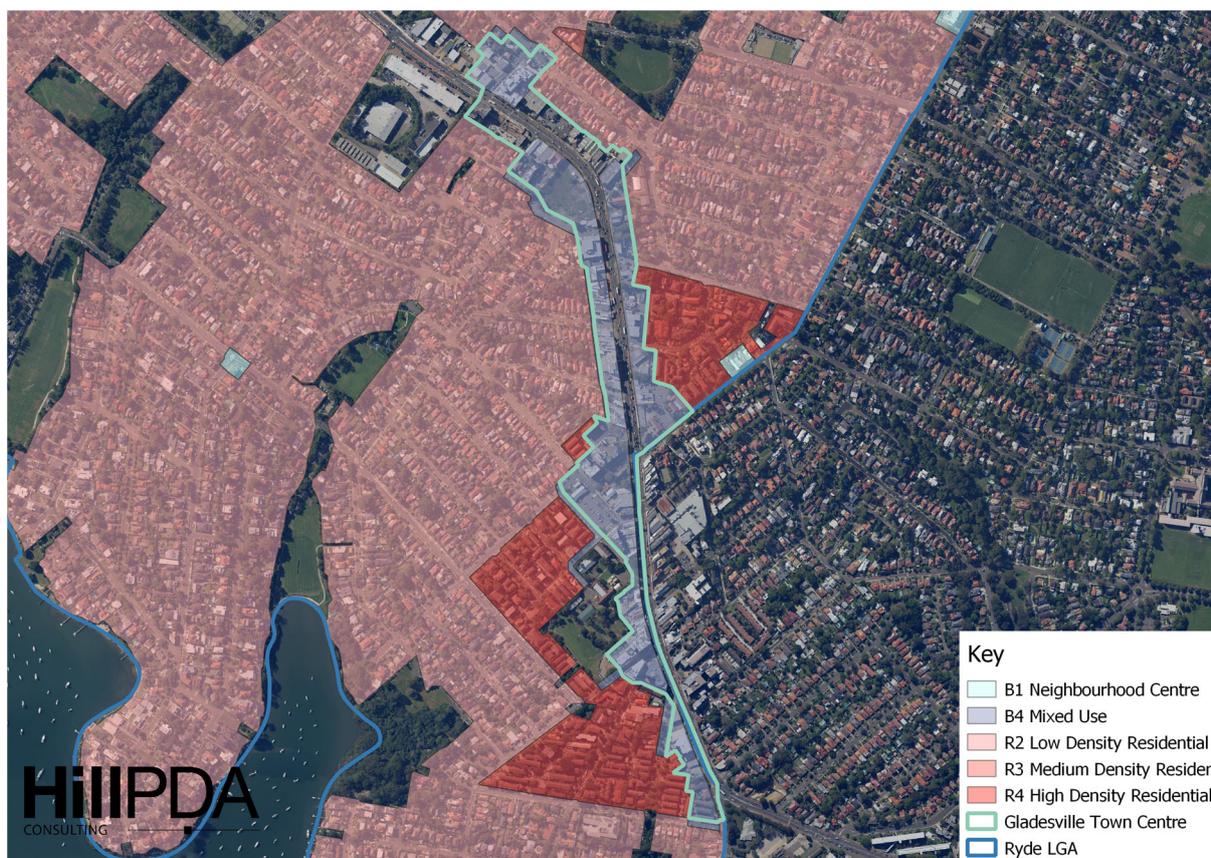
- Supermarkets at Top Ryde
- Ryde park
- a library
- a primary school
- mixed retail, restaurants and services.

6.1.2.5 Gladesville

Gladesville is an extended centre along Victoria Road at the south-east border of Ryde with Hunters Hill. Approximately 1.7 km long, the centre has approximately five signalised pedestrian crossings, providing mixed access between the western and eastern portions of the centre. Regional access to the centre is limited to public and private vehicle via Victoria Road.

The centre is zoned B4 Mixed Use, with the exception of B6 Business Corridor along its northern edge. The built form of Gladesville is varied, with a mix of five to seven storey mixed use developments and smaller one to two storey shops with a mix of residential and commercial uses on the second floor.

Figure 57: Gladesville centre



Residential uses to the southwest and to the east of the centre, north of Pittwater Road, consist of three to four storey residential flat buildings, with ground floor parking. To the west and northeast of the centre, low density development generally consists of separate houses, with a mix of dual occupancy and villa development.

Amenities in the area include:

- Two supermarkets
- Ryde Aquatic Leisure Centre
- a library
- a public and private school
- general proximity to parks
- mixed retail, restaurants and services.

6.1.2.6 Macquarie University/Herring Road Station Priority Precinct

The Macquarie University/Herring Road Station Priority Precinct is a large centre that encompasses a large portion of the urbanised area of the Ryde LGA, north of Epping Road. For the purposes of this Strategy, the centre includes the residential portion of Macquarie Park that is adjacent to Macquarie University, along Herring Road. It excludes the Macquarie Park Commercial Core, which is not considered for residential growth, as the zone prohibits residential uses.

The centre, previous accessible by the T1 Northern Line rail service, has recently reopened as part of the Metro North West Line. The centre is otherwise accessible via the M2 Epping Road, and Lane Cove Road.

Residential development in the area is primarily three to four storey residential flat buildings to the south of Waterloo Road, with townhouse development accessible via Ivanhoe Place. More recent mixed use developments have been completed at Macquarie Park Village to the west of Herring Road, with approximately 20 storeys of shop top housing. A mixed-service seniors living development comprises the westernmost border of the centre.

Figure 58: Macquarie University/Herring Road Station Priority Precinct (Residential component)



The centre is generally separated from surrounding residential uses by M2 and Epping Road, with limited pedestrian amenity within the centre. However, residential uses to the south of the centre are generally separate houses, with limited dual occupation and villa development.

Amenities in the area include:

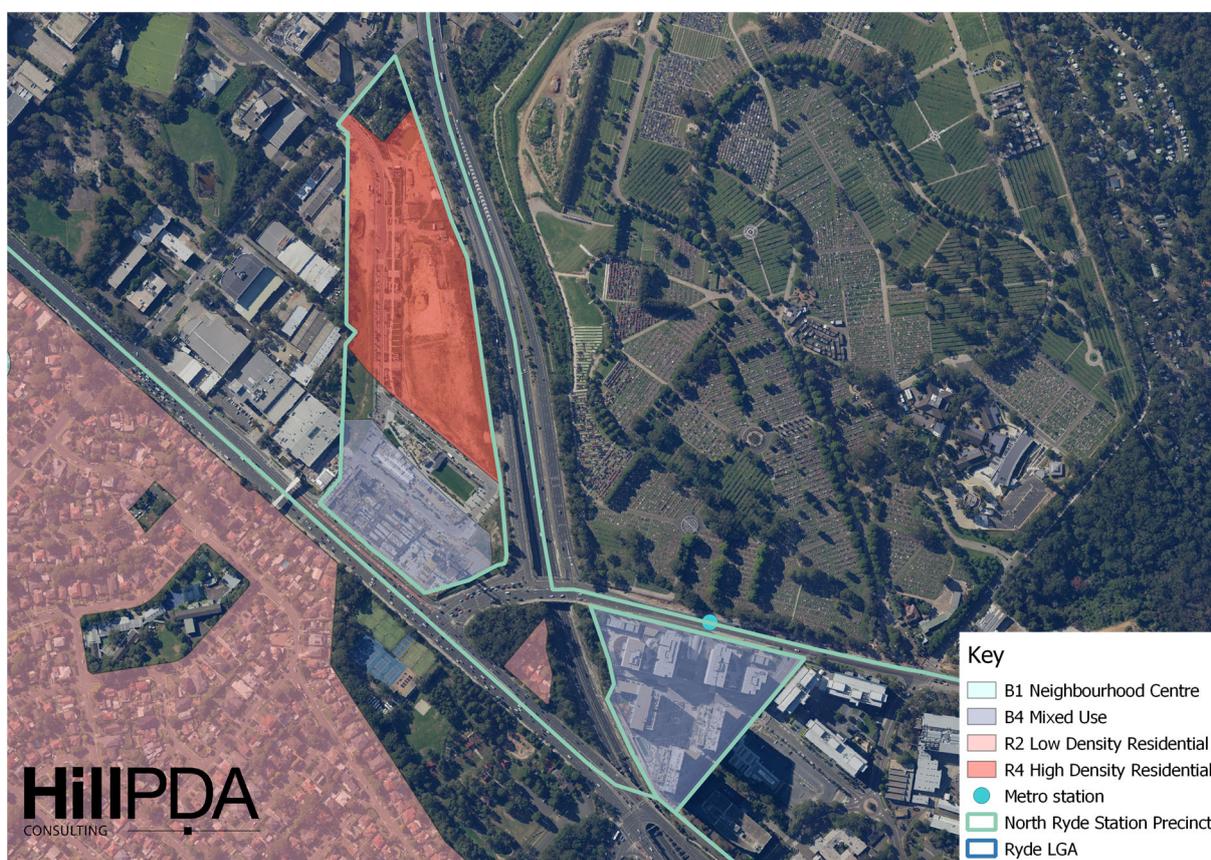
- Macquarie University Metro Station
- Multiple supermarkets, retail and services at the Macquarie centre
- Macquarie University
- Macquarie University Hospital.

6.1.2.7 North Ryde Station Priority Precinct

The North Ryde Station Priority Precinct is a localised centre at the eastern area of the Macquarie Park centre. It is in proximity to the North Ryde Metro Station, at the intersection of Epping Road and Delhi Road. The centre primarily consists of two major building sites: Ryde Garden and Nbh at Lachlan’s Line. The Ryde Garden development and the initial stages of the Nbh development have been completed. The developments are generally 15 to 20 storeys in height, with a mix of commercial and community uses at or near ground level. A small pocket of separated houses is located in the middle of the centre.

The centre is isolated from surrounding residential uses by Epping Road, with limited pedestrian access within and external to the centre. This access includes a pedestrian bridge or three-road crossing at Nbh at Lachlan’s Line and a two-road crossing at Ryde Garden. Residential uses to the south of the centre are generally separate houses, with occasional dual occupancy development.

Figure 59: North Ryde Station Centre



Amenities in the area include:

- North Ryde Metro Station
- Retail and services within the developments
- Blenheim Park (limited access)
- a primary school.

6.1.3 Estimated capacity for additional dwellings

Estimates for the development potential of each centre have been provided in Table 29 using the method described in Section 6.1.1. This has primarily considered height and site area to determine potential yield, with the low and high ranges representing efficiency of development. This represents dwelling capacity outside of the existing development pipeline. This represents a range of 4,500 and 10,800 dwellings potentially deliverable on private sites that have not otherwise been identified for development.

The table combines the result with the existing post-2021 pipeline capacity across the centres and subtracts the existing dwellings across the centres to determine the overall theoretical capacity ranges for existing centres.

Table 29: Estimated theoretical additional capacity in centres

Capacity type	Low range	High range
Meadowbank	200	500
Ryde Town Centre	0*	1,200
Gladesville	500	1,300
Eastwood Town Centre	500	1,300
West Ryde	500	1,300
Macquarie University/Herring Road Station Priority Precinct	1,500	3,900
North Ryde Station Priority Precinct	1,300	1,300
Estimated non-pipeline dwelling capacity	4,500	10,800
Existing post-2021 pipeline capacity	8,900	8,900
Existing dwellings	1,300*	2,750
Total theoretical capacity	12,100	16,950

Source: Ryde Council, HillPDA

Note: Ryde is assumed to have a 0 low range capacity due to the established nature of the centre

Table 30 indicates the dwelling potential associated with the existing development pipeline in each centre. The Macquarie University/Herring Road Station Precinct has the greatest potential for development within the existing pipeline, with approximately 8,650 dwellings. This includes the State Government’s priority precinct. This indicates a large portion of the development to 2026 will be in the Macquarie University/Herring Road Station Priority Precinct area.

Table 30: Post 2021 development pipeline

Precinct	Pipeline
Meadowbank	150
West Ryde	100
Macquarie University/Herring Road Station Priority Precinct	8,650
Total pipeline development	8,900

Source: Ryde Council, 2019

6.2 Development potential in low density residential areas

Approximately 2,082 hectares, or 51 per cent of the area of Ryde LGA, is zoned R2 Low density residential. Dwelling development in these areas is likely to be limited to dual occupancies or multi dwelling housing. The table below outlines relevant provisions of Ryde LEP 2014 relating to these land uses:

Table 31: Ryde LEP 2014 controls relating to Dual Occupancies and Multi dwelling housing

	Definition	Frontage	Minimum lot size	Density
Dual occupancies (attached)	Dual occupancy (attached) means 2 dwellings on one lot of land that are attached to each other but does not include a secondary dwelling.	Clause 4.1B Road frontage at least 20 m	Clause 4.1B 580 m ²	N/A (effectively 290 m ² per dwelling)
Multi dwelling housing	Multi dwelling housing means 3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.	Clause 4.1B Road frontage equal to or greater than 20 m	Clause 4.1B 900 m ²	(a) the site area for the building is not less than: (i) for each 1, 2 or 3 bedroom dwelling—300 square metres, and (ii) for each 4 or more bedroom dwelling—365 square metres

Source: Ryde LEP 2014

HillPDA has undertaken an analysis of the capacity of R2 zoned land in Ryde LGA. The method used is summarised as follows:

- Strata lots were excluded as they were assumed not to have development potential because of the constraint imposed by multiple ownership
- Lots under 580 m² were excluded as unlikely to achieve an additional dwelling
- Lot frontage was used as a determinant of development potential for remaining lots
- Lots were assigned dual occupancy or multi dwelling housing capacity, depending on lot size and frontage
- Spot checks of multi dwelling housing lots were undertaken to determine if they were likely to be a non-strata multi-dwelling development. Only strata lots were removed from the capacity analysis.

The outcome of analysis is shown in Table 32.

Table 32: R2 Low Density Residential zone capacity estimates

Housing type	Lots with capacity	Theoretical maximum dwelling yield
Dual occupancy	2,987 lots	2,987 dwellings
Multi dwelling housing	949 lots	2,265 dwellings
Total	3,936 lots	5,252 dwellings

The method only considers lots with a primary frontage of 20 m, while Council's controls allow primary and secondary frontages to be considered as a combined frontage and may therefore be a slight undercount.

The assumed potential of lots that meet the multi dwelling housing controls is indicated in Table 33. Most lots in the R2 zone are 1,500 m² or smaller with capacity for smaller medium-density housing builds of three to four units.

Table 33: Sites with potential for multi dwelling houses

Lot size (m ³)	Lot count	Additional dwellings per lot	Number of additional dwellings
Area >= 900 and Area < 1200	747	2	1494
Area >= 1200 and Area < 1500	132	3	396
Area >= 1500 and Area < 1800	34	4	136
Area >= 1800 and Area < 2100	13	5	65
Area >= 2100 and Area < 2400	10	6	60
Area >= 2400 and Area < 2700	4	7	28
Area >= 2700 and Area < 3000	3	8	24
Area >= 3000 and Area < 3300	2	9	18
Area >= 3300 and Area < 3600	0	10	0
Area > 3600	3	11	44
Total additional dwellings	949		2,265

Source: Ryde Council, HillPDA

6.3 Current dwelling potential relative to demand

Table 34 compares City of Ryde's total theoretical maximum capacity and projections of housing demand have been prepared by DPIE, and Forecast.id. These projections suggest that between 2016 to 2036, between 20,200 and 22,000 new dwellings are likely to be required, with approximately 35,000 additional dwellings capable under current controls.

The analysis suggests overall, the current planning controls provide sufficient capacity to meet future requirements to 2036. However, future revisions to the planning controls will be needed in order to maintain a long-term supply of housing land.

Table 34: Dwelling potential and projected dwelling requirements

Scenario	2016 to 2021		2022 to 2036		Total
	Residential Zones	Town Centres	Residential Zones	Town Centres	
Theoretical maximum capacity	2,257	10,529	5,252*	16,950*	34,988*
Forecast .id projected dwellings 2016-2036		6,640		13,551	20,191
DPIE projected dwellings 2016-2036		6,250		15,750	22,000

* Does not consider environmental or design constraints of individual lots

Source: Ryde Council, HillPDA, Greater Sydney Commission, forecast .id, Department of Planning, Industry and Environment

6.4 Dwelling potential from exempt and complying development

As discussed in Section 2.3.5, Part 3B of the Codes SEPP is scheduled to commence in Ryde in July 2020 allowing certain medium density housing types as complying development:

- Dual occupancy developments on land with an area of 580 m² and a width of 15 m
- Dual occupancy developments on land with an area of 580 m² and a width as low as 12 m, if rear vehicle access is provided

- Multi dwelling housing (terraces) on land with an area of 900 m² and a width of 18 m and
- Manor houses, a form of residential flat building on land with an area of 600 m² and width of 15 m.

The development of these housing typologies would be subject to the design and site requirements outlined in the Codes SEPP and the accompanying design guidelines. As such, not every site that meets the above requirements would be suitable for development and would need to undergo assessment by a certified planner.

The commencement of Part 3B controls will result in minimum frontage requirements for dual occupancies decreasing from 20 m to 15 m.

Manor houses are a new form of development for the Ryde LGA. The manor house provisions under Part 3B would allow three to four dwellings on 600 m² lots. Dwelling capacity is largely driven by the size of the lot, with the GFA being 150 m², plus 25 per cent of the lot area, to a maximum of 400 m².

6.5 Dwelling potential arising for the commencement of the Low Rise Medium Density Housing Code

The pending commencement of the Codes SEPP's Part 3B Low Rise Medium Density Housing Code will significantly increase the potential for delivery of dual occupancy and 'manor house' type dwellings.

- HillPDA has undertaken a desktop spatial assessment of the Ryde LGA to identify the potential impact of commencement of the new controls. This has considered zoning, lot size, strata title and frontage as the primary considerations to determine potential impacts. Additional site testing has not been undertaken. The following assumptions have been made to determine the potential impacts: Only R2 Low Density Residential Land can deliver new dual occupancy or manor house development
- Any land with a frontage under 15 m, size under 580 m² or is currently strata can deliver new dual occupancy or manor house development
- R2 zoned land with a site area over 1000 m² and a frontage over 15 m is capable of a four-unit manor house, and an additional dwelling capacity of 3 dwellings
- R2 zoned land with a site area between 600 m² and 1000 m² and a frontage over 15 m is capable of a three-unit manor house and an additional dwelling capacity of 2 dwellings
- R2 zoned lots with a site area between 580 m² and 600 m² and a frontage over 15 m is capable of a dual occupancy development, and an additional dwelling capacity of 1 dwelling
- An alternate scenario of manor house not being a permissible use has assumed all manor-house capable lots are instead capable on providing a single dual occupancy unit, with an additional dwelling capacity of 1 dwelling.

Based on this analysis, it is estimated that the new controls could have the following potential impacts:

- Approximately 11,626 lots have been identified as being larger than 580 m² with a frontage over 15 m
 - 7,050 lots would be capable of delivering three-unit manor houses, each providing an additional two dwellings
 - 937 lots would be capable of delivering four-unit manor houses, each providing an additional three dwellings
 - 2,186 lots would be capable of dual occupancy development
- Alternatively, if manor houses were not permitted, the 11,626 lots would be capable of dual occupancy development, each providing an additional dwelling

The table below considers the theoretical capacity of the following scenarios:

- Current controls
- Current controls, with multi dwelling housing prohibited
- Part 3B controls, with multi dwelling housing (manor house) permitted

- Part 3B controls, with multi dwelling housing (manor house) prohibited.

Table 35: Comparison existing and anticipated Part 3B planning controls

Scenario	Dual Occ	Multi-Dwelling	Theoretical maximum dwelling yield
Existing controls - 20 m primary frontage only	2,987 lots 2,987 additional dwellings	949 lots 2,265 additional dwellings	3,936 lots 5,252 additional dwellings
Existing controls – 20 m primary frontage only (multi dwelling housing use prohibited)	3,936 lots 3,936 additional dwellings	-	3,936 lots 3,936 additional dwellings
Part 3B CDC - 15m frontage, with existing dual occupancy minimum lot size and manor house use permitted	3,615 lots 3,615 additional dwellings	(Manor House Only) 7,935 lots 16,803 additional dwellings	11,550 lots 20,418 additional dwellings
Part 3B CDC - 15m frontage, with existing dual occupancy minimum lot size and manor house use prohibited	11,550 lots 11,550 additional dwellings	-	11,550 lots 11,550 additional dwellings

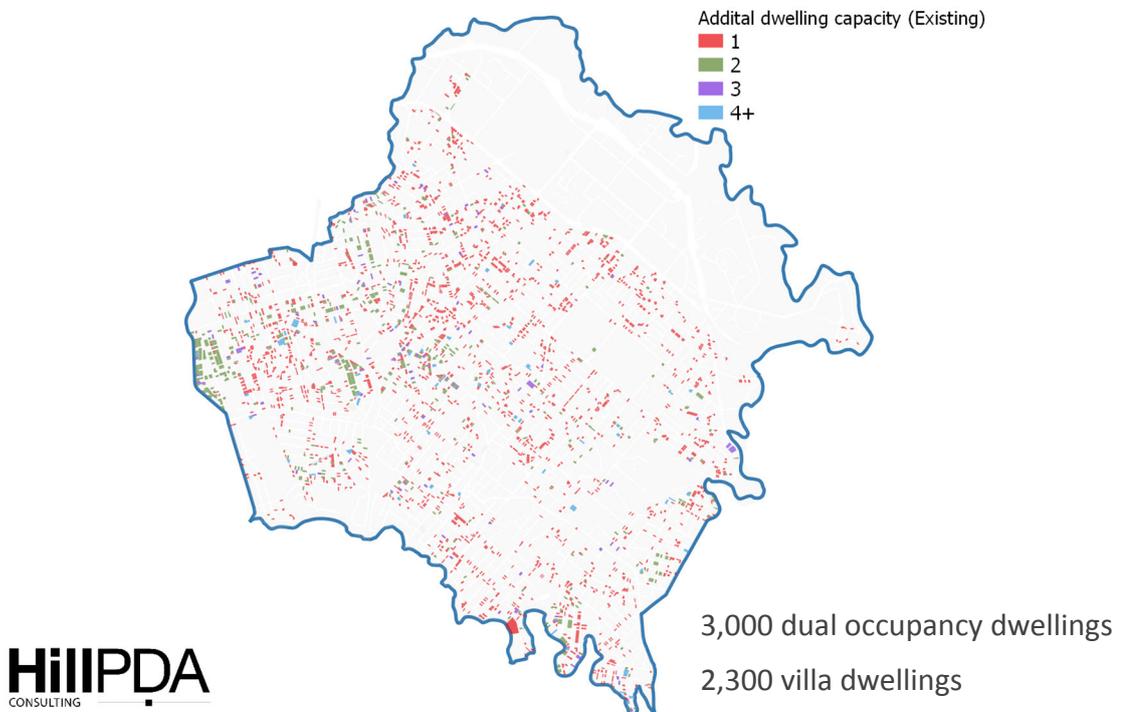
The implementation of Part 3B of the Code SEPP represents a theoretical additional theoretical dwelling potential and 20,418 dwellings across 11,550 lots (approximately 50 per cent of Torrens titled R2 land). This is approximately an additional 15,000 dwellings above current capacity.

Alternatively, if manor houses were not a permitted land use and current dual occupancy minimum lot sizes applied, the reduced frontage size would theoretically allow for 11,550 dual occupancies across the R2 Low Density Residential zone. This is an increase of approximately 7,600 dwellings, if multi dwelling houses were prohibited current controls otherwise stayed the same.

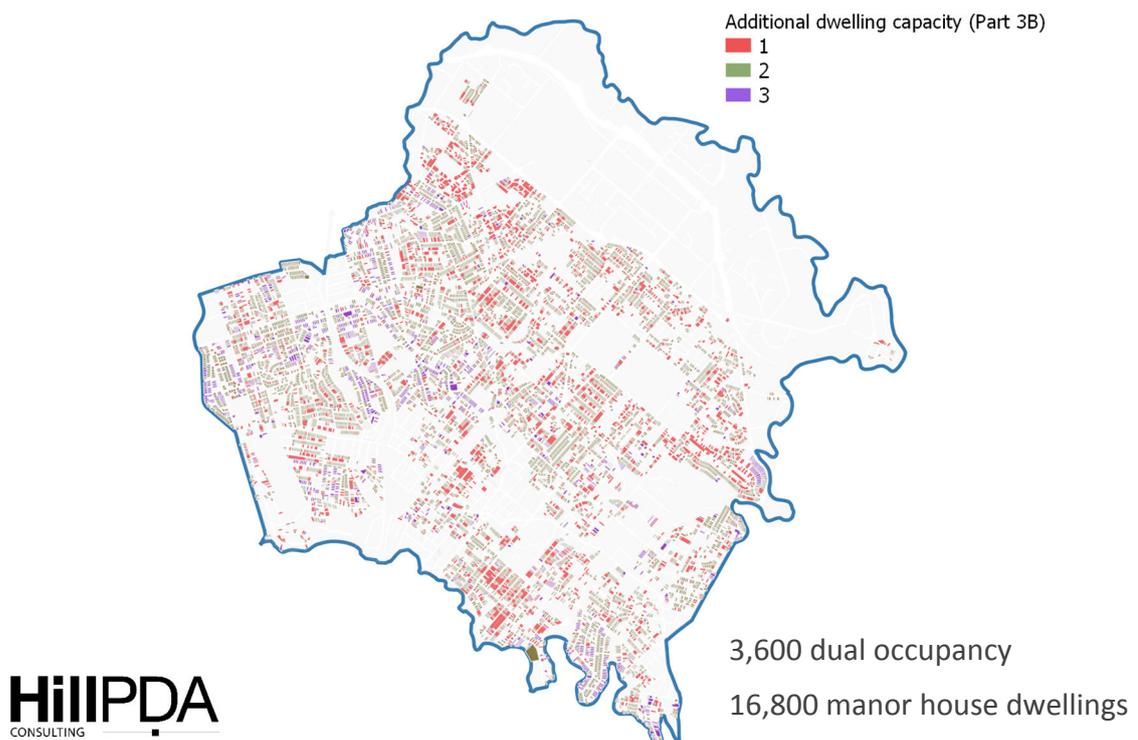
Figure 60 shows the potential additional dwelling capacity of the current controls and the application of Part 3B controls

Figure 60: Indicative lots with dwelling potential

Current planning controls



With Part 3B of the Codes SEPP



Source: HiIPDA

Ryde LEP 2014 primarily limits dual occupancy development based on frontage controls, with the minimum lot size, 580 m² being the same as the overall minimum subdivision lot size for the Council. The commencement of Part 3B controls will mean that any R2 zoned land that complies with the LEP minimum lot size is a candidate for dual occupancy development.

The potential for manor house development is independent of LEP numerical controls. Part 3B requires a minimum lot size of 600 m² for manor homes which is slightly larger than the minimum lot size in Ryde LEP 2012, with the primary restraining factor being a requirement for a 15 m frontage.

As such, the commencement of Part 3B controls would result in a significant increase in dwelling capacity. The assessment below suggests that the additional dwelling potential arising from the commencement of Part 3B is not required for the LGA to meet the forecasted dwelling increases into 2036.

6.6 Implications

- Ryde LGA is expected to meet the following 2016 to 2021 and 2016 to 2036 dwelling delivery targets:
 - The current 2016 to 2021 dwelling delivery target for Ryde is 7,600.
 - 2016 to 2036 dwelling delivery forecasts by forecast .id and DPIE are 20,000 and 22,000, respectively
 - Current planning controls and pipeline development allow for a post-2021 theoretical maximum capacity of approximately 22,000 dwellings.
 - The theoretical capacity under current controls for development between 2016 to 2036 delivery is approximately 35,000 dwellings, well exceeding projections.
- Introduction of Low Rise Medium Density Housing Control would theoretically increase the theoretical maximum dwelling capacity of R2 land from 5,252 to 20,418, an increase of approximately 15,000 dwellings
 - This increase is distributed across the LGA and is not aligned with infrastructure or services
 - Development would largely be assessed as complying development, with minimal ability for Council to guide development outcomes
- Existing housing typologies generally exceed the bedroom requirements of households, including dual occupancy/multi dwelling housing
 - More compact medium density typologies would continue to meet the needs of smaller households
 - Larger housing typologies are anticipated to continue to be a high demand housing type for larger and lifestyle-focused households
- Vacancy rates as of 2016 were lower than Greater Sydney, aligning with the higher housing stress encountered in Ryde.
- Existing housing typologies are generally restricted to the following forms:
 - Separate houses, dual occupancies and multi dwelling housing in R2, with redevelopment for larger houses and opportunistic dual occupancy/multi dwelling housing conversion
 - Three to four story 1960s flat buildings in R4 zones adjacent to centres, with no capacity to redevelop to larger formats
 - Centres contain a mix of fragmented one-two dwelling shop housing and contemporary four story or larger mixed use development, with opportunistic development based on combining sites
 - Recently completed/pipeline development in the Macquarie University/Herring Road Station Priority Precinct and North Ryde Station Priority consist of eight story or larger modern flat buildings as part of recent centre development.

HOUSING DELIVERY OPTIONS

7.0 HOUSING DELIVERY OPTIONS

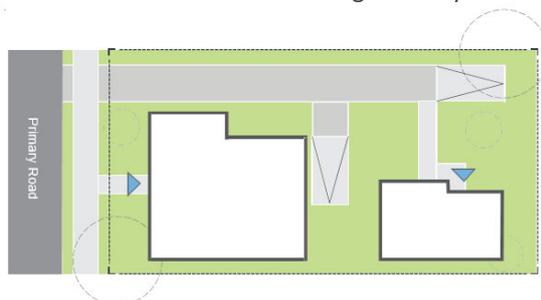
Meeting dwelling targets can be achieved through various housing forms and urban structures. It demonstrates that while high density residential is one way of meeting housing targets, there are various other urban structures that can have similar density outcomes.

7.1 Housing typologies

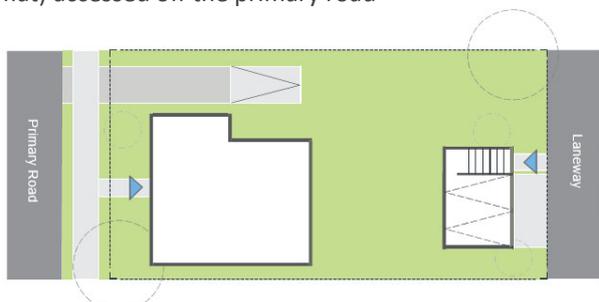
The form of housing that is delivered in an area reflects many factors, including the natural environment, proximity to other uses, cultural norms and statutory controls. The various typologies have been further explored in this section and tested based on real examples within the Ryde LGA to demonstrate their application. Strengths, issues and key controls have also been explored for each typology.

7.1.1 Detached houses with or without a secondary dwelling

The addition of a secondary dwelling to a detached house is popular in the Ryde LGA. The most common form is the single storey 'granny flat' at the rear of the property. A much less common typology is the 'fonzie flat' or 'loft unit' which is located on top of rear garages and helps activate laneways, provide surveillance and increase housing diversity



Detached house with a secondary dwelling (granny flat) accessed off the primary road



Detached house with a secondary dwelling (loft unit) above rear garages and addressing the laneway

Characteristics	
Typical height	1-2 storeys
Max building height*	9.5m
Typical lot size	400 - 800m ²
Minimum lot size*	580m ² , 450m ² for secondary dwelling
Minimum lot width*	12m for secondary dwelling
Typical no. of bedrooms	3-4 (+1-2 in secondary dwelling)
Typical floorspace	150 - 240m ²
Land title	Torrens (freehold)
Typical occupancy	3-5 people, +1-2 secondary dwelling
Max FSR*	0.5:1
Min landscaped area*	35 per cent of site area
Min front setback*	6m
Min rear setback*	8m (or 25 per cent of site depth)
Min side setback*	0.9 - 1.5m
Parking provision*	up to 2 spaces
Parking arrangement	Garage/ carport
Entry	Separate
Open space	Yard/ garden
Affordability of typology	Low for detached house, high for secondary dwelling
Occurrence in Ryde	Popular

* Ryde LEP/ DCP

01



Recent detached houses in the Ryde LGA tend to be larger and bulkier than traditional houses

02



Example of a 'granny flat' with separate access on a corner site in Tennyson Point

03



Aerial view of a recent secondary dwelling accessed off Annie Lane, West Ryde

04



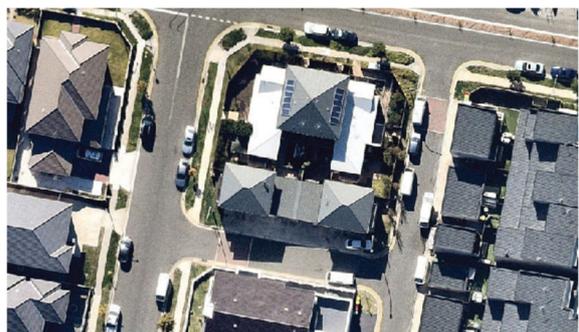
Aerial view of a recent secondary dwelling accessed off Linton Lane, West Ryde

05



Example of an affordable 'fonzie flat' in the Potts Hill Community Housing precinct in Bankstown

06



Aerial view of two of the fonzie flats (see adjacent photo 05) addressing Rowe Lane, Potts Hill

Typology	Strengths	Issues and opportunities	Key controls
Detached Houses	<ul style="list-style-type: none"> This typology is popular and offers a wide range of dwelling sizes and styles. Upgrading of existing dwelling stock is occurring both via large extensions and knock down and rebuild (often project homes). 	<ul style="list-style-type: none"> The popularity of new large detached houses is changing the local character. Existing one-storey dwellings are replaced by two-storey houses with reduced landscaped areas, small side setbacks, flat roofs and double garages facing the street. The use of internal voids further increases bulk and scale of development. Difficult to provision social and transport infrastructure due to low density. Maximum height of building of 9.5 m, conflicts with two storey DCP control. 	<p>The Ryde DCP permits detached houses up to two storeys high and on lots equal to or larger than 580m².</p> <p>The DCP requires a front setback of 6m, side setbacks of 0.9 to 1.5m and a rear setback of 8m or 25 per cent of lot depth whichever is greater.</p> <p>The maximum density is 0.5:1 FSR and the minimum landscaped (deep soil) area is 35 per cent of the site area.</p>
Detached Houses with Secondary Dwelling	<ul style="list-style-type: none"> 'Granny flats' are popular on larger sites, corner sites and sites with rear laneways. Secondary dwellings are effective in increasing overall dwelling density, as well as housing diversity by adding smaller dwellings to the mix. Loft units along rear lanes increase activity and surveillance. 	<ul style="list-style-type: none"> Primary controls are under the Affordable Rental Housing SEPP with minimal Council control Council noted there is demand for granny flats (loft units) over garages on rear lanes, however no detailed planning controls currently exist for this typology. Sacrifices private open space for additional built form. 	<p>Some types of secondary dwellings are permissible under the Affordable Housing SEPP which applies to the majority of Ryde LGA.</p> <p>The SEPP controls apply as there are no location specific controls for secondary dwellings in the LEP or DCP. Currently 'Granny flats' over garages are not permitted under the SEPP.</p>

**Tested scenario – Granny flat
Mid-block lot (15 x 55m) under SEPP**



Key controls

- Land use zone: R2 (LEP)
- Maximum density: max. GFA 380m² (SEPP) 60m² Secondary dwelling (SEPP)
- Building height: 8.5m (SEPP)
- Minimum lot size: 580m² (LEP)
- Minimum lot width: 12m (SEPP)
- Setbacks: Rear: 3m, abutting rear boundary for 50 per cent of boundary if lot on laneway (SEPP)
- Landscaped area: 20 per cent landscaped area (SEPP)
- Site coverage of all development: 50 per cent (SEPP)
- Private open space (secondary dwelling): 24m² (SEPP)

Property information

- Site area: 600m²
- Lot width: 15m
- Lot depth: 40m
- Access: dual frontage mid-block
- Address: 12 Moss Street, West Ryde

Test results

- Achieved density: 0.36:1 FSR (overall)
- Number of dwellings: 2
- Total GFA: 215m²
- GFA per dwelling: Primary: 118m², Secondary: 60m², Carport: 37m²
- Landscaped area: 372m²



**Tested scenario – Secondary Dwelling
Granny flat over garage not currently permissible**



Key controls

- Land use zone: R2 (LEP)
- Maximum density: max. GFA 380m² (SEPP) 60m² Secondary dwelling (SEPP)
- Building height: 9.5m (LEP)
- Minimum lot size: 580m² (LEP)
- Minimum lot width: 12m (TBD)
- Setbacks: Side 2m (TBD), Rear 2.5m (TBD)
- Landscaped area: (TBD)
- Site coverage of all development: (TBD)
- Private open space (secondary dwelling): (TBD)

Property information

- Site area: 600m²
- Lot width: 15m
- Lot depth: 40m
- Access: dual frontage mid-block
- Address: 12 Moss Street, West Ryde

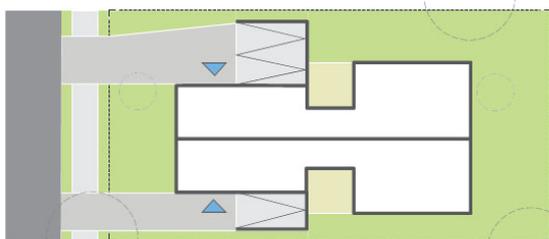
Test results

- Achieved density: 0.41:1 FSR (overall)
- Number of dwellings: 2
- Total GFA: 246m²
- GFA per dwelling: Primary: 118m², Secondary: 60m², Garage: 66m²
- Landscaped area: 392m²

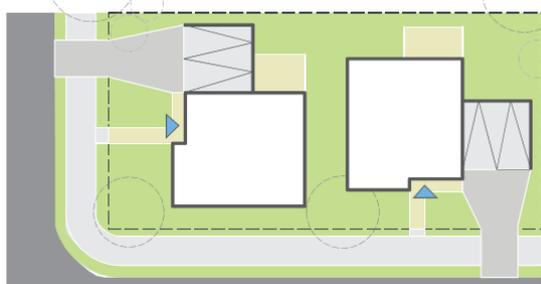


7.1.2 Dual occupancy - detached, attached, mid-block, corner

Dual occupancies locate two dwellings on one lot which can be arranged side by side facing the same street frontage, behind each other with the rear dwelling accessed by a driveway, or located on corner lots where (ideally) one dwelling addresses the primary road and the other the secondary road.



Attached asymmetrical dual occupancy side by side with both dwellings accessed from the primary street



Detached dual occupancy on a corner lot with one dwelling addressing the primary street and the other the secondary street

Characteristics	
Typical height	2 storeys
Max building height*	8.5m
Typical lot size	250 - 400m ²
Minimum lot size*	580m ² before subdivision, 290m ² minimum subdivision
Minimum lot width*	20m
Typical no. of bedrooms	3 - 4
Typical floorspace	120 - 180m ²
Land title	Torrens or strata
Typical occupancy	2-4 people
Max FSR*	0.5:1
Min landscaped area*	35 per cent of site area deep soil
Min front setback*	6m
Min rear setback*	8m or 25 per cent of site depth
Min side setback*	0.9 - 1.5m
Parking provision*	1 space/ dwelling
Parking arrangement	Garage/ carport
Entry	Separate
Open space	Yard/ garden
Affordability of typology	Medium
Occurrence in Ryde	Popular

* Ryde LEP/ DCP

07



Example of a dual occupancy in the Ryde LGA with one building behind the other

08



This dual occupancy on a corner addresses the minor street/ laneway with a bulky built form

09



Mirrored dual occupancies often increase the visual bulk of the built form when viewed from the street

10



The varied front setback on this dual occupancy helps to create interest and break the bulk of the built form

11



Attached dual occupancy on corner sites can also generate long bulky buildings facing the street

12



Instead of stepping, maintaining the same floor level for both dwellings increase the development's bulk

Typology	Strengths	Issues and opportunities	Key controls
Dual Occupancies - mid block side by side	<ul style="list-style-type: none"> This typology can create a 'semi-detached' appearance with the potential to sensitively integrate additional dwellings into existing residential areas. 	<ul style="list-style-type: none"> Often delivered as a large dwelling (3-4 bedrooms) that seeks to 'max out' the permissible FSR/ building envelope using internal voids within the dwelling. The popularity of a 'mirrored' design also increases the visual bulk and scale of the built form. Part 3B controls will reduce frontage requirements, greatly increasing dwelling capacity 	<p>The DCP identifies a minimum lot size of 580m² with a minimum frontage of 20m. The Medium Density Housing Code allows a minimum lot size of 400m² and a minimum frontage of 15m or 12m wide if the lot has a secondary frontage.</p>
Dual Occupancies - mid block one behind other	<ul style="list-style-type: none"> They are a popular and well-known typology with local developers. 	<ul style="list-style-type: none"> This type of development can result in the loss of rear gardens and tall trees. If the rear dwelling is allowed to be 2 storeys this creates increased likelihood of overlooking / overshadowing of neighbouring properties. 	<p>This typology is not currently permissible under the LEP/ DCP or the Medium Density Housing Code.</p>
Dual Occupancies – corner site	<ul style="list-style-type: none"> This typology can provide additional 'hidden density' with little change to existing streetscape. There is an opportunity to retain older dwellings/heritage items. 	<ul style="list-style-type: none"> Very large dwellings that maximise (and exceed) the FSR are typical in the LGA. Dwellings are predominantly 4 bedrooms with limited development of 3 or fewer bedroom dwellings. There is a predominance of mirrored dual occupancy which only faces the longer street boundary. On narrow sites the development is generally close to the new front boundary (often former side boundary) with a very long façade. This design is especially poor if it occurs facing a narrow laneway. Part 3B controls will reduce frontage requirements, greatly increasing dwelling capacity. 	<p>The minimum lot size for a dual occupancy in the DCP is 580m² with a minimum frontage of 20m. Note the "frontage" is the combined length of any boundary to the street or laneway. The Medium Density Housing Code allows a minimum lot size of 400m² and a minimum frontage of 12m on dual frontage sites.</p>

**Tested scenario –Dual occupancy
Mid-block lot (15 x 40m) under MD Code**



Key controls

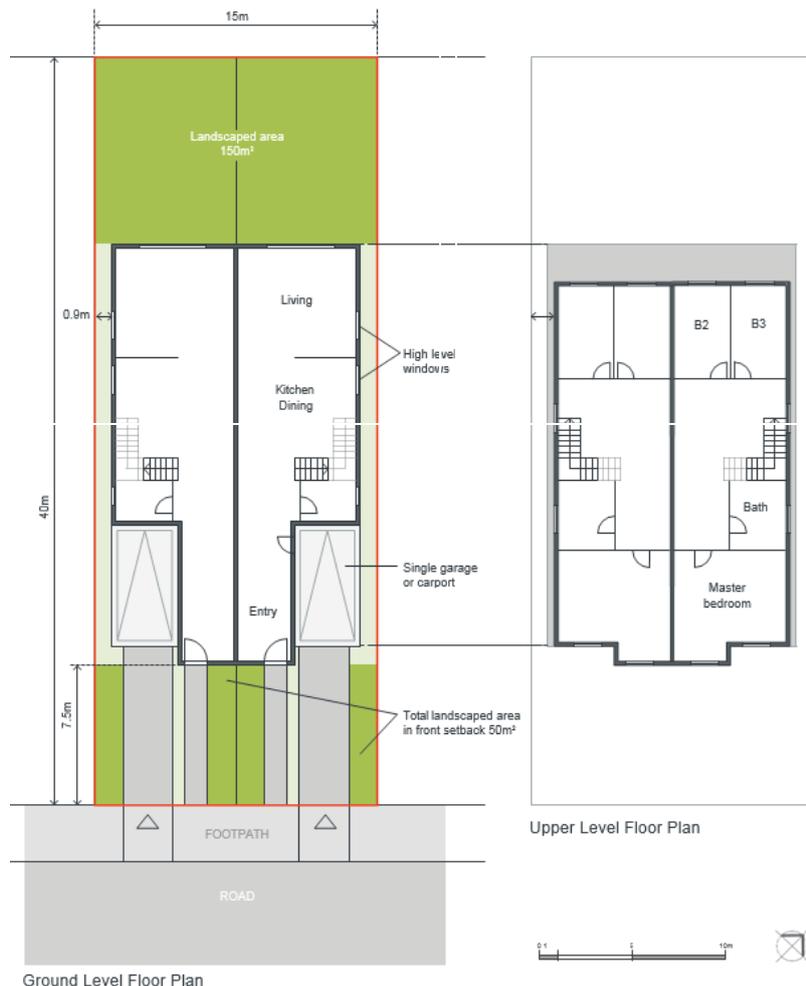
- Land use zone: R2 (LEP)
- Maximum density: max. GFA 450m² (MD Code: 25 per cent of lot area + 300m²)
- Building height: 9.5m (LEP)
- Minimum lot size: 580m², subdivision: 290m² (LEP)
- Minimum lot width: 15m (MD Code)
- Setbacks: Front: 7.5m (average of two closest dwellings), Side 0.9 GF, 1.25m upper floor (0-4.5m building height=0.9m, 4.5-8.5m=building height- 4.5m/4+0.9m), Rear: 3m GF, 8m upper floor (MD Code)
- Landscaped area: minimum 200m² landscaped area (50 per cent of lot area -100m² with minimum dimension of 1.5m, MD Code)

Property information

- Site area: 600m²
- Lot width: 15m
- Lot depth: 40m
- Access: single street frontage
- Address: 60 Greene Ave, Ryde

Test results

- Achieved density: 0.75:1 FSR
- Number of dwellings: 2
- Total GFA: 450m²
- GFA per dwelling: 225m²
- Landscaped area: 200m²



**Tested scenario –Dual occupancy
Mid-block lot (20x46m) under DCP**



Key controls

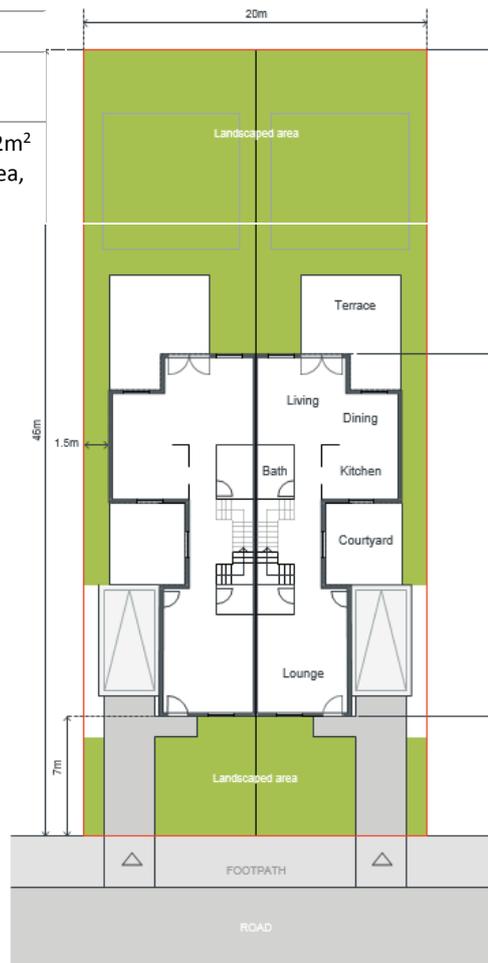
- Land use zone: R2 (LEP)
- Maximum density: 0.5:1 FSR (=460m² GFA, LEP)
- Building height: 9.5m (LEP)
- Minimum lot size: 580m², subdivision: 290m² (LEP)
- Minimum lot width: 20m (DCP)
- Setbacks: Front 6m, Side 1.5m, Rear: 11.5m (DCP)
- Landscaped area: minimum 322m² deep soil (35 per cent of site area, DCP)

Property information

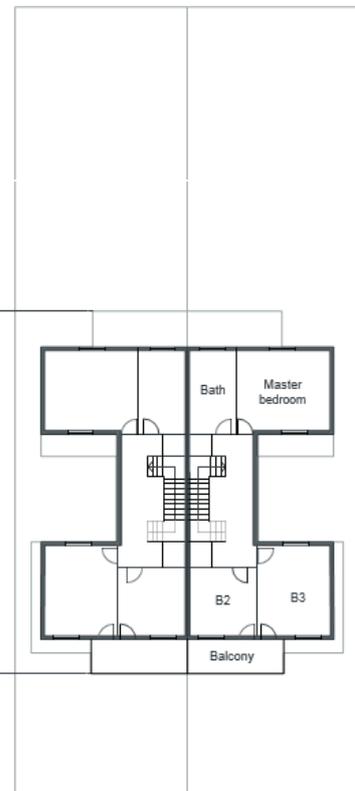
- Site area: 920m²
- Lot width: 20m
- Lot depth: 46m
- Access: single street frontage
- Address: 46 Russell St, Denistone East

Test results

- Achieved density: 0.5:1 FSR
- Number of dwellings: 2
- Total GFA: 460m²
- GFA per dwelling: 230m²
- Landscaped area: 434m² deep soil



Ground Level Floor Plan

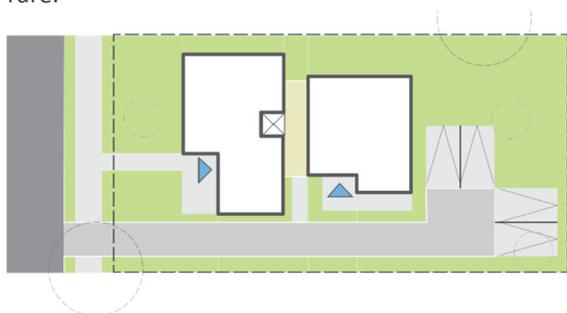


Upper Level Floor Plan

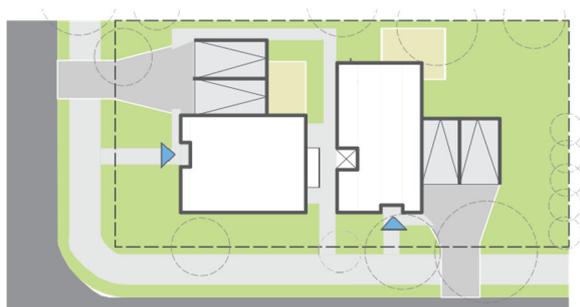


7.1.3 Manor houses - Multi-plex development

Manor house or multi-plex developments typically contain three to four dwellings integrated into a single or two storey built form. The two storey form can have the appearance of a large detached house that integrates well with the character of existing low density residential areas. This typology was a popular housing form across Sydney in the Art Deco and Interwar periods but recent examples are relatively rare.



Manor House development with a single frontage to the street and on grade car parking to the rear



Manor House development on a corner lot that addressed both streets

Characteristics	
Typical height	2 storeys
Max building height*	8.5m
Typical lot size	450 - 700m ²
Minimum lot size*	600m ²
Minimum lot width*	20m
Typical no. of bedrooms	2
Typical floorspace	80m ²
Land title	Strata
Typical occupancy	2 people
Max FSR*	0.45:1 - 0.6:1 FSR
Min landscaped area*	20 to 50 per cent (increases w. lot size)
Min front setback*	Average of neighbours or 5.5m
Min rear setback*	3 to 6m
Min side setback*	1.2 - 3.6m plus 45° height plane
Parking provision*	0.5 - 1 spaces per dwelling
Parking arrangement	Carport/ on-grade
Entry	Shared and/or separate (stairs)
Open space	Yard or balcony
Affordability of typology	Medium to high
Occurrence in Ryde	Rare

* Low Rise Medium Density Housing Code

13



Traditional fourplex typology in Drummoyne popular across Sydney during the Art Deco/ Interwar period

14



Concept design of a manor house on a corner lot with entries off both the primary and secondary street

15



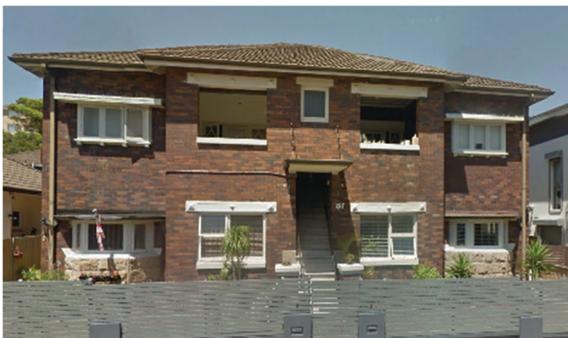
A multi-plex typology in North Lakes, QLD on a corner lot (Source: Moreton Bay Planning Scheme Policy)

16



Example of a manor house on a corner lot (Source: Medium Density Housing Code)

17



This manor house or 'quadplex' near Bondi Beach relies on on-street parking only (Source: Google Streetview)

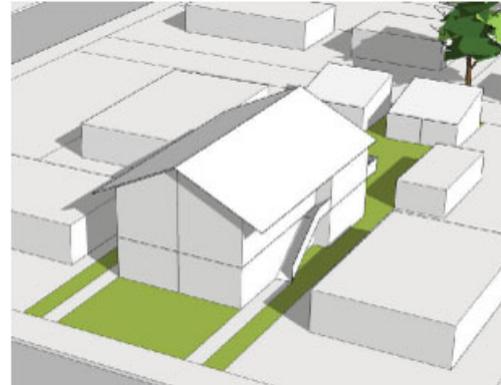
18



Aerial view of a manor house pictured on the left (photo 17) located on a 450m2 lot

Typology	Strengths	Issues and opportunities	Key controls
Manor Houses - mid block lot	<ul style="list-style-type: none"> This typology can have the appearance and bulk and scale of a large detached house. It provides the opportunity for smaller, more affordable dwellings i.e. 1 or 2 bedroom dwellings. 	<ul style="list-style-type: none"> This is a challenging typology on mid-block sites due to need for multiple 'front doors'. Concerns include the loss of privacy of neighbours due to overlooking from living rooms and balconies on the first floor and the increased density and subsequent need to accommodate additional parking. 	<p>Not currently permissible under the LEP/ DCP. Permissible under the Medium Density Housing Code in zones that allow multi-dwelling housing.</p>
Manor Houses - dual frontage lot (corner or laneway)	<ul style="list-style-type: none"> With the opportunity to address both frontages, manor houses on dual frontage lots can more effectively integrate pedestrian and vehicular access. 	<ul style="list-style-type: none"> This typology is generally more successful on corner sites and sites with laneway access due to reduced driveway and the opportunity for additional dwelling entries. 	As above

**Tested scenario – Manor house
Dual frontage lot (15x50m) under MD Code**



Key controls

Land use zone: R2 (LEP) possible future R3

Maximum density: max. GFA 337.5m² (25 per cent of lot area + 150m²=0.45 FSR, MD Code)

Building height: 8.5m (MD Code)

Minimum lot size: 900m² (LEP/DCP)

Minimum lot width: 15m (MD Code)

Setbacks: Front 7.5m (average of two closest dwellings), Side 1.5m, Rear: 6m GF and 10m upper floor (MD Code). This site is a dual frontage lot and a 1.5m setback to garages has been applied.

Landscaped area: minimum 275m² landscaped area (50 per cent of lot area - 100m² with minimum dimension of 1.5m, minimum 50 per cent landscaped area in front setback, MD Code)

Property information

Site area: 750m²

Lot width: 15m

Lot depth: 50m

Access: dual street frontage

Address: 28 Hermitage Rd, West Ryde

Test results

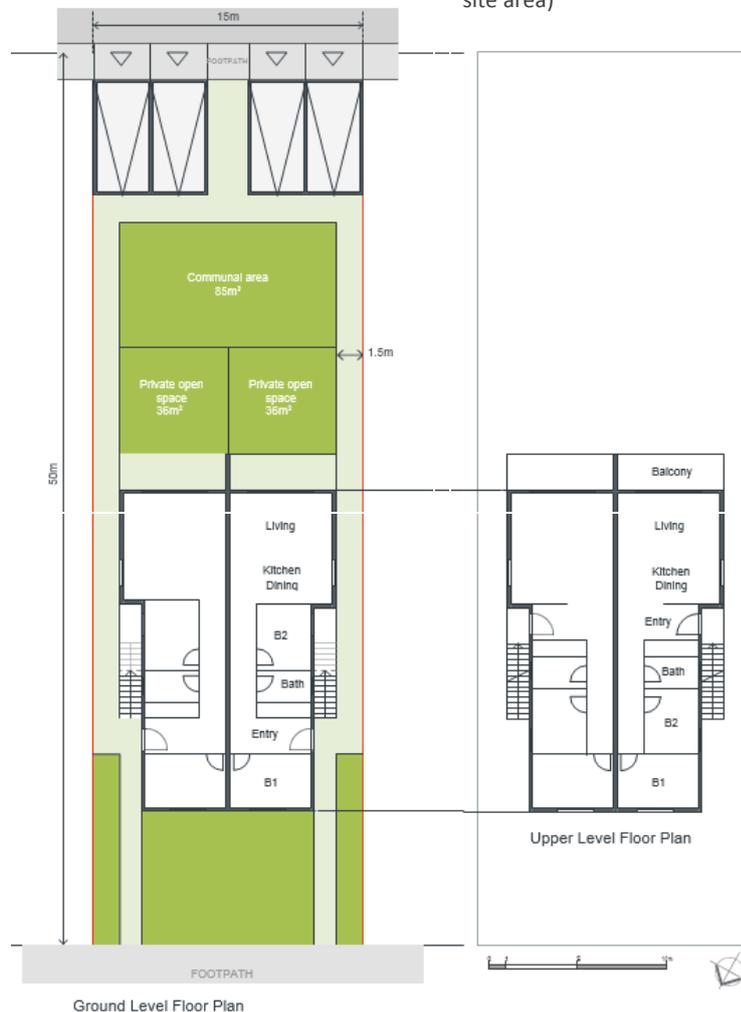
Achieved density: 0.45:1 FSR

Number of dwellings: 4

Total GFA: 336m²

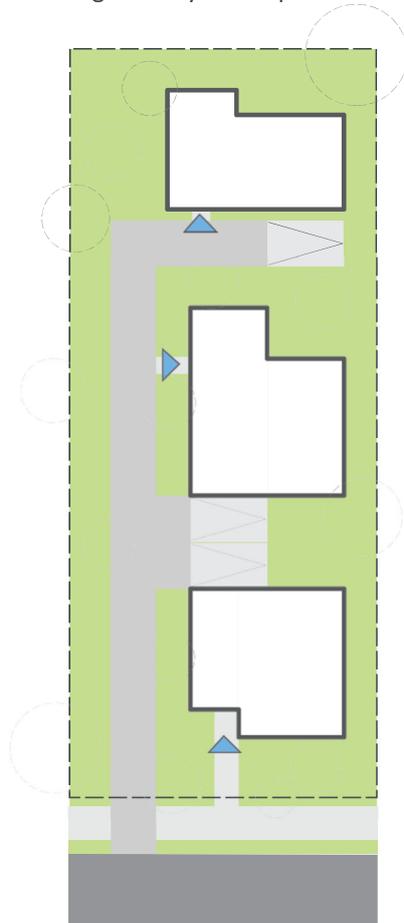
GFA per dwelling: 84m²

Landscaped area: 278m² (37% of site area)



7.1.4 Villa development - row housing

A popular typology in the Ryde LGA, villa developments contain three or more dwellings on one lot. Dwellings to the rear are accessed by an internal shared driveway. The difference between villa development and townhouses (see typology No.5) is that villas are typically being defined as a street-facing two storey development with rear single storey development.



Villa development with a single street frontage and shared driveway

Characteristics	
Typical height	2 storey street facing dwelling with 1 storey dwellings to the rear of the site
Max building height*	Where the LEP/ DCP does not include height limits - R1 and R2 zone: 9m and 5.4m for the rear 40 per cent of the lot, R3 zone: 11m
Typical lot size	400 - 1,000m ²
Minimum lot size*	as identified in the LEP, if not specified 600m ²
Minimum lot width*	as identified in the LEP or DCP, if not specified 20m
Typical no. of bedrooms	2 - 3
Typical floorspace	80 - 120m ²
Land title	Strata
Typical occupancy	2 people
Max FSR*	as identified in the LEP, if not specified R1 and R2 zone: 0.5:1 FSR, R3 zone: 0.8:1 FSR
Min landscaped area*	as identified in the LEP, if not specified R1 and R2 zone: 30 per cent of lot area, R3 zone: 20 per cent
Min front setback*	as identified in the DCP, if not specified average of the two closest dwelling
Min rear setback*	as identified in the DCP, if not specified 6m
Min side setback*	as identified in the DCP, if not specified 1.5m
Parking provision*	as identified in the DCP, if not specified 1 car space per dwelling
Parking arrangement	Garage/ carport
Entry	Separate, shared driveway
Open space	Yard/ garden
Affordability of typology	Medium
Occurrence in Ryde	Popular

* Low Rise Medium Density Housing Code

19



Example of villa development to the rear (single storey) and a well-articulated 2 storey dwelling addressing the street

20



Similar to photo 19, the appearance of a detached house successfully integrates into the local context

21



This bulky 2 storey form with limited articulation provides less positive contribution compared to the photos above

22



A villa development in Ryde with a 2 storey dwelling addressing the street

23



A key issue for villa developments is the extent of site coverage and lack of vegetation (Victoria Road, Ryde)

24

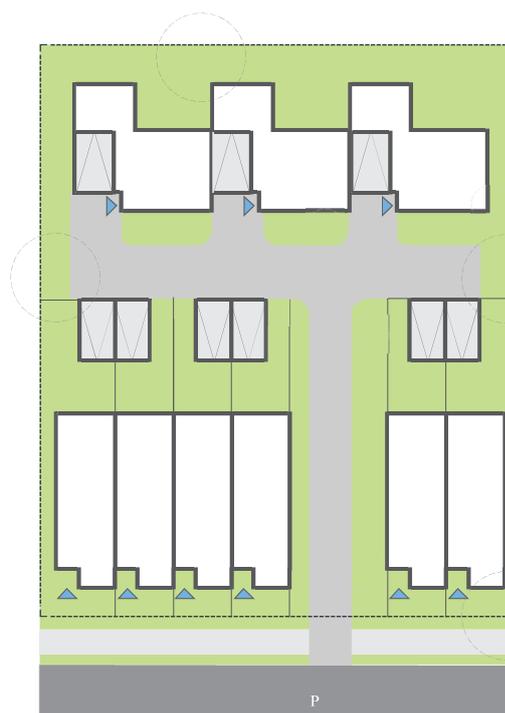


Unit sizes in villa developments tend to be smaller, single storey and are often popular with the elderly

Strengths	Issues and opportunities	Key controls
<p>In the Ryde LGA, villa development often achieves the streetscape appearance and bulk and scale of a typical detached house with driveway on one side. Villa development is a popular dwelling typology in Ryde.</p>	<p>This typology often has a very high site coverage (non-permeable surface) with limited landscape areas and trees.</p>	<ul style="list-style-type: none"> ● The DCP requirement for the front entrance of at least one dwelling to face the street and allowing the dwelling facing the street to be 2 storeys helps to make this type of development fit well into the streetscape. ● There is a minimum separation between habitable windows of facing dwellings within the development of 9m however this requirement is not extended to properties adjoining the development increasing the potential impact on neighbours. ● The area allocated to driveways and parking is reduced by allowing multiple driveways, one vehicle to reverse and tandem parking. The requirement for a visitor space increases the area of hard stand. ● Council considers tandem parking a poor option and has found extra crossings result in a loss of street trees and /or on street parking.

7.1.5 Townhouses - mews housing

This typology is defined as a two storey built form, attached or detached, which is accessed off an internal privately-owned driveway rather than addressing a public street. It is a good typology to use on larger deep blocks of land. The two storey forms are referred to as townhouses, and single storey forms as villas (see typology No.4).



Example of a townhouse development with a central shared driveway facilitating access to parking and rear dwellings

Characteristics	
Typical height	2 storeys
Max building height*	Where the LEP/ DCP does not include height limits - R1 and R2 zone: 9m and 5.4m for the rear 40 per cent of the lot, R3 zone: 11m
Typical lot size	400 - 1,000m ²
Minimum lot size*	as identified in the LEP, if not specified 600m ²
Minimum lot width*	as identified in the LEP or DCP, if not specified 20m
Typical no. of bedrooms	3
Typical floorspace	120 - 180m ²
Land title	Strata
Typical occupancy	2-4 people
Max FSR*	as identified in the LEP, if not specified R1 and R2 zone: 0.5:1 FSR, R3 zone: 0.8:1 FSR
Min landscaped area*	as identified in the LEP, if not specified R1 and R2 zone: 30 per cent of lot area, R3 zone: 20 per cent
Min front setback*	as identified in the DCP, if not specified average of the two closest dwelling
Min rear setback*	as identified in the DCP, if not specified 6m
Min side setback*	as identified in the DCP, if not specified 1.5m
Parking provision*	as identified in the DCP, if not specified 1 car space per dwelling
Parking arrangement	Garage/ carport
Entry	Separate, shared driveway
Open space	Yard and balcony
Affordability of typology	Medium
Occurrence in Ryde	Occasional

* Low Rise Medium Density Housing Code

Strengths	Issues and opportunities	Key controls
A more intense, higher density form of development, typically two (2) storey strata development with internal vehicular access and parking on grade or in basement.	<ul style="list-style-type: none"> This typology can result in high site coverage with a lack of tree planting and mature vegetation. The complexity of strata title on parcels of land that are comparably small can also be problematic. This is a relatively rare typology in Ryde. 	Generally, not currently permissible but a few examples exist in the Ryde LGA, e.g. 1 Anzac Ave in Denistone.

25



Townhouse development located in Denistone with on grade shared access to car parking

26



A townhouse development in Ryde with basement parking located in an R3 zone

27



Townhouses are typically two storeys with access off a private road or driveway

28



Some townhouse developments contain large dwellings in excess of 180m2 GFA

29



The use of pitched roofs and articulation of the facade along the street helps to break the bulk of the built form

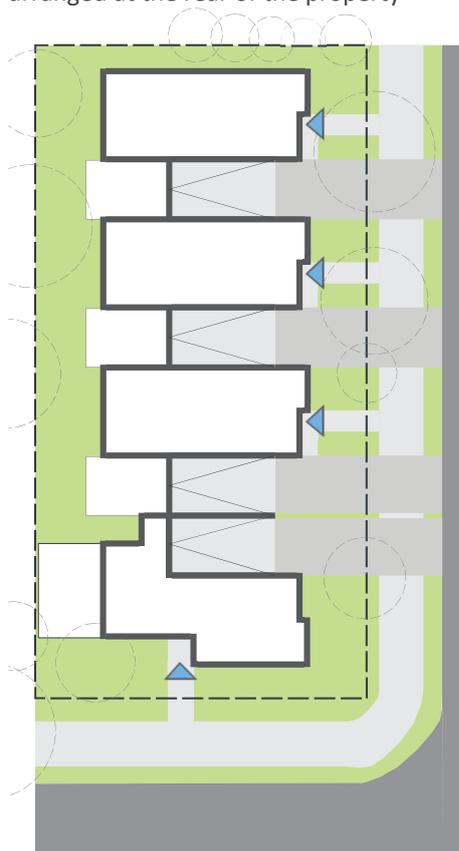
30



Townhouse development on Anzac Ave, Denistone

7.1.6 Terraces - Front loaded, rear loaded or basement

Terraces are a long-established attached housing typology typically 2 storeys in height and build in a row. Vehicular access can be from the front (primary street), the rear (laneway) or included in a shared basement. Typically, each dwelling is orientated front to back, with private open space arranged at the rear of the property



Front loaded terraces on a corner lot

Characteristics	
Typical height	2 storeys
Max building height*	9m
Typical lot size	150-250m ² (after subdivision)
Minimum lot size*	as identified in the LEP or DCP, if not specified 600m ²
Minimum lot width*	as identified in the LEP or DCP, if not specified 18m (before subdivision)
Typical no. of bedrooms	3
Typical floorspace	140 - 180m ²
Land title	Torrens or strata
Typical occupancy	2-4 people
Max FSR*	R1 and R2 zones: 0.6:1 FSR, R3 zone: 0.8:1 FSR
Min landscaped area*	R1 and R2 zones: 30 per cent of lot area, R3 zone: 20 per cent
Min front setback*	R1 and R2 zones: average of the two closest dwelling houses, R3 zone: 3.5m
Min rear setback*	3 - 15m (increases with lot size prior to subdivision)
Min side setback*	1.5m
Parking provision*	1 space per dwelling
Parking arrangement	Garage/ carport
Entry	Separate
Open space	Small yard/ garden
Affordability of typology	Medium
Occurrence in Ryde	Rare

* Low Rise Medium Density Housing Code

31



2 storey rear loaded terrace houses in Putney Hill with varied facade treatments, stepping down the slope

32



Front loaded terrace houses in Putney Hill with a variety of materials, windows and balconies

33



Putney Hill's terrace houses are a good example of a 3 storey typology providing surveillance to the street

34



Example of contemporary 2 storey front loaded terrace houses (Source: Moreland City Council)

35



Landscaping of the front setback of these rear loaded terraces adds to the streetscape amenity

36



These strata titled terraces in Kiama successfully address the street with parking to the rear

Typology	Strengths	Issues and opportunities	Key controls
Terraces – front loaded	Two or three storey Torrens title development with access off street; Desirable typology with simple construction and no complex strata issues for the long term	With this typology there can be a loss of street parking due to multiple driveway crossovers. With poor design quality, streetscapes can be dominated by garage doors.	This typology is generally not currently permissible in the Ryde LGA however good examples have been built in the Putney Hill development. It is permissible under the Medium Density Housing Code in zones that allow multi-dwelling housing.
Terraces – rear loaded	2 or 3 storey Torrens title development with access off rear laneway. Desirable typology with simple construction, no complex strata issues for the long term and positive contribution to streetscape due to rear vehicular access and parking (no driveways, high number of front doors and habitable rooms overlooking street).	This typology requires rear lane access and on deep sites this can be an inefficient use of land.	This typology is generally not currently permissible in the Ryde LGA however good examples have been built in the Putney Hill development. It is permissible under the Medium Density Housing Code in zones that allow multi-dwelling housing.

Tested scenario – Terraces
Dual frontage lot (30x50m) under MD Code



Key controls

Land use zone: R2 (LEP), possible future R3

Maximum density: 0.8:1 FSR (=1,200m² GFA, MD Code)

Building height: 9m (MD Code)

Minimum lot size: 900m² (LEP/DCP)

Minimum lot width: 18m (MD Code)

Setbacks: Front 3.5m in R3 zone, Side 1.5m, Rear: 5m GF and 12m upper floor (MD Code) note: the site is a dual frontage lot with no existing rear boundary therefore it is assumed that rear setbacks do not apply.

Landscaped area: minimum 300m² landscaped area (MD Code: 20 per cent of lot area after subdivision with minimum dimension of 1.5m, minimum 25 per cent landscaped area in front setback)

Property information

Site area: 750m²

Lot width: 15m

Lot depth: 50m

Access: dual street frontage

Address: 28 Hermitage Rd, West Ryde

Test results

Achieved density: 0.45:1 FSR

Number of dwellings: 4

Total GFA: 336m²

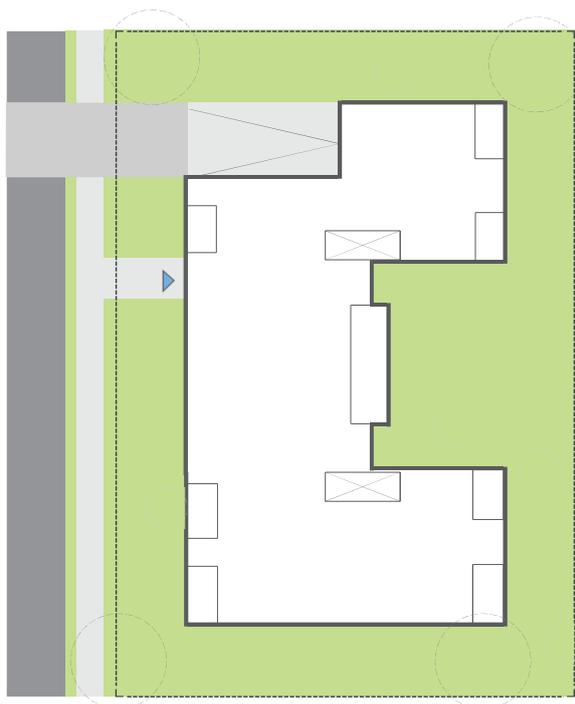
GFA per dwelling: 84m²

Landscaped area: 278m² (37 per cent of site area)



7.1.7 Apartments - Low/ medium/ high-rise, shop-top

Apartment development occurs in a variety of arrangements, configurations and types, including low rise (3-4 storeys), medium rise (5-8 storeys) and high-rise typologies (8+ storeys). The medium and high-rise forms are most common in the Ryde LGA with low rise apartments typically being older housing stock (often 3 storey, brick walk-up buildings).



Apartment typology with driveway and ramp to basement parking

Characteristics	
Typical height	3-8 storeys
Max building height*	varies
Typical lot size	1000+m2
Minimum lot size*	varies
Minimum lot width*	varies
Typical no. of bedrooms	1-3
Typical floorspace	50 - 110m2
Land title	Strata
Typical occupancy	1 - 3 people
Max FSR*	varies
Min landscaped area*	min. 7 per cent of site area deep soil, minimum dimensions 3 - 6m
Min front setback*	varies
Min rear setback*	varies
Min side setback*	3 - 12m depending on building height and habitable/ non-habitable rooms
Parking provision*	for sites near rail stations or B3 and B4 zones as set out in the Guide to Traffic Generating Developments, or the car parking requirement in the DCP whichever is less, sites in all other areas as per DCP
Parking arrangement	Basement
Entry	Shared
Open space	Balcony
Affordability of typology	Low to medium
Occurrence in Ryde	Popular

* Apartment Design Guide

37



An example of a low-rise apartment development in Newhall UK

38



Low rise apartments are between 3 and 4 storeys with most contemporary types offering lift access

39



This medium rise apartment typology in Meadowbank is located along a steep frontage

40



This development in Meadowbank applies a 4+2 and 4+1 built form (4 storeys plus 1-2 upper storeys))

41



A more traditional (older) 3 storey low rise apartment building in Top Ryde is a frequent typology across Sydney

42



Medium rise apartments in Top Ryde with a 4+1 built form and modulated facade

Typology	Strengths	Issues and opportunities	Key controls
Low Rise Apartments - 3-4 storeys	A low-rise typology, which traditionally took the form of 3 storey walk ups, and can be found across Ryde. It can be an affordable housing option with small to medium size dwellings (1-2 bedrooms).	This type of development is often now over 50 years old and can require refurbishment or renewal. In recent years less of this scale of development has been occurring, with recent apartment developments tending to be higher (see typologies below).	as per ADG
Mid Rise Apartments - 5-8 storeys	This typology is a common higher density form of recent development that has been popular with developers.	Extensive excavation is creating below ground apartments. Issues mainly arising due to slope and impact on adjoining low rise housing. Some very large floorplate buildings with few gaps between buildings have occurred in the Ryde LGA.	as per ADG
High Rise Apartments - 8+ storeys	This typology is a common higher density form of recent development that has been popular with developers.	Extensive excavation is creating below ground apartments. Historically, ADG development has promoted 12m to 18m wide 'canyons' between towers, without sufficient supporting open spaces. Issues arising due to slope and visual impact of development down the slope.	as per ADG
Shop Top Housing	In some areas of new development within the LGA this typology has been popular. Council considers that where developments have been following the controls it has been working well (i.e. Gladesville) but other in areas (i.e. Meadowbank) where developments have not been built/ designed in accordance with the masterplan it is not working as well.	Large areas of poorly designed ground floor retail/ commercial spaces is creating large undercroft spaces and vacant shops. In some mixed use buildings, there are conflicts and amenity issues between residential and non-residential uses.	as per ADG

Tested scenario - Low rise apartments
Single frontage mid-block lot (35x50m) under DCP



Key controls

Land use zone: R2 (LEP), possible future R3

Maximum density: 0.8:1 FSR (=1,200m² GFA, MD Code)

Building height: 9m (MD Code)

Minimum lot size: 900m² (LEP/DCP)

Minimum lot width: 18m (MD Code)

Setbacks: Front 3.5m in R3 zone, Side 1.5m, Rear: 5m GF and 12m upper floor (MD Code) note: the site is a dual frontage lot with no existing rear boundary therefore it is assumed that rear setbacks do not apply.

Landscaped area: minimum 300m² landscaped area (MD Code: 20 per cent of lot area after subdivision with minimum dimension of 1.5m, minimum 25 per cent landscaped area in front setback)

Property information

Site area: 1,750m²

Lot width: 35m (20m +15m)

Lot depth: 50m

Access: single frontage mid-block

Address: 10 & 12 Second Ave, Eastwood

Test results

Achieved density: 0.54:1 FSR

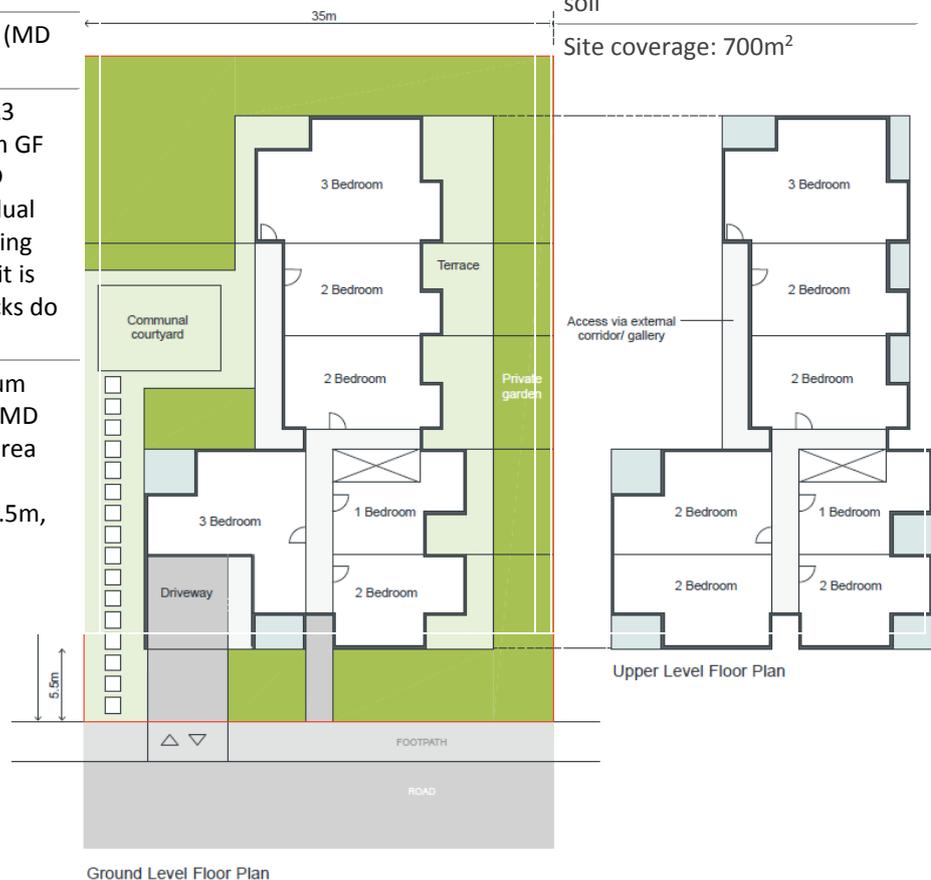
Number of dwellings: 13 apartments

Total GFA: 940m²

GFA per dwelling: 50-105m²

Landscaped area: 630m² deep soil

Site coverage: 700m²

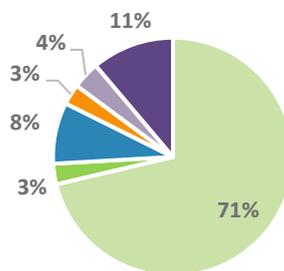


7.2 Options for density distribution

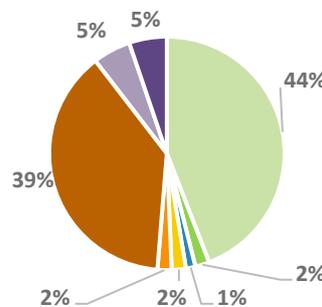
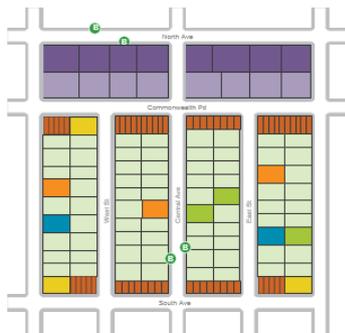
There is a common misconception that higher density can only be achieved by increasing building heights and delivering multi-storey apartments. While increasing residential building height is one way to achieve more dwellings; infill development can be an alternative method that delivers on both housing diversity objectives and dwelling growth.

Dependent on the application of planning controls, a given site can yield different net residential densities that can more appropriately fit with the existing urban fabric. This section explores how three different configurations of housing typologies can deliver the same net dwelling increase, however vastly different neighbourhood characteristic outcomes.

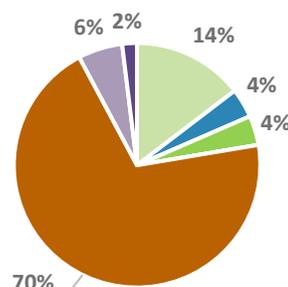
OPTION 1 – High rise focus



OPTION 2 – Transition focus



OPTION 3 – Medium density focus



7.2.1 Option 1 – High rise focus

Option 1 shows a consolidated area of higher density apartments (77 per cent of dwellings) with limited medium density dwellings (2 per cent of dwellings) with large area of predominantly low-density houses (22 per cent of dwellings). This option may result on additional strain on surrounding open space, with higher density dwellings potentially relying on surrounding community assets, instead of the on-site amenity enjoyed by detached dwellings.

Note: All options deliver the same overall number of dwellings.



Dwelling typology	Dwellings/Lot	No. of lots	Total dwellings	%
Detached	1 dwelling	77	77	17%
Detached + secondary	2 dwellings	3	6	1%
Dual occupancy	2 dwellings	9	18	4%
Multiplex	4 dwellings*	-	-	0%
Townhouse/ villa	3 dwellings*	3	9	2%
Terrace	1 dwelling	-	-	0%
Apartment low-rise	12 dwellings*	4	48	11%
Apartment mid/high rise	24 dwellings*	12	288	65%
*Dwelling numbers per lot are assumptions for this housing mix comparison only and may vary.			446	100%

7.2.2 Option 2 – Transition focus

Higher density apartments (65 per cent of dwellings) are concentrated along the main road and transition down towards lower density development. Medium density development (18 per cent of dwellings) is concentrated on corner sites. A range of lower density development (17 per cent of dwellings) is dispersed across the remaining area. This option generally represents Council’s current policy approach for dwelling mix, but anticipates additional structure in transition between uses

Note: All options deliver the same overall number of dwellings.



Dwelling typology	Dwellings/Lot	No. of lots	Total dwellings	%
Detached	1 dwelling	68	68	15%
Detached + secondary	2 dwellings	3	6	1%
Dual occupancy	2 dwellings	2	4	1%
Multiplex	4 dwellings*	3	12	3%
Townhouse/ villa	3 dwellings*	3	9	2%
Terrace	1 dwelling	59	59	13%
Apartment low-rise	12 dwellings*	8	96	22%
Apartment mid/high rise	24 dwellings*	8	192	43%
			446	100%

*Dwelling numbers per lot are assumptions for this housing mix comparison only and may vary.

7.2.3 Option 3 – Medium density focus

In this option different dwelling densities are separated into different zones. Apartments are located along the main road (55 per cent of dwellings) with terrace houses (32 per cent of dwellings) concentrated to the west and low-density development to the east (15 per cent of dwellings). This option generally represents the dispersed density anticipated under the future controls outlined in Part 3B of the Codes SEPP.

Note: All options deliver the same overall number of dwellings.



Dwelling typology	Dwellings/Lot	No. of lots	Total dwellings	%
Detached	1 dwelling	30	30	7%
Detached + secondary	2 dwellings	8	16	4%
Dual occupancy	2 dwellings	8	16	4%
Multiplex	4 dwellings*	-	-	0%
Townhouse/ villa	3 dwellings*	-	-	0%
Terrace	1 dwelling	144	144	32%
Apartment low-rise	12 dwellings*	12	144	32%
Apartment mid/high rise	24 dwellings*	4	96	22%
			446	100%

*Dwelling numbers per lot are assumptions for this housing mix comparison only and may vary.

STAKEHOLDER VIEWS

8.0 STAKEHOLDER VIEWS

8.1 LSPS consultation feedback

Ryde’s draft Local Strategic Planning Statement was placed on public exhibition from 1 July to 12 August. The community was invited to make submissions regarding the content of the LSPS, as well complete a survey which contained questions regarding housing preferences.

As part of the draft LSPS exhibition, approximately 600 online and hard copy surveys, 500 telephone surveys, a stakeholder workshop and 10 ‘swing-bys’ were completed. Themes of responses to this engagement included:

- Concerns that high-density housing is threatening the visual amenity of the character of the area
- Support for low-density, and to a lesser degree, high-density housing to meet the needs of different populations
- High value of heritage and local character
- Housing delivery has not been supported enough by infrastructure
- Strong support for light rail, road improvements, and public transport improvements to the region
- New housing development should consider the needs of older populations
- Low density areas are not being serviced at the same level as higher density areas
- Housing affordability is an issue in Ryde
- Medium density can provide a transition between high and low density areas.

Several submissions from key stakeholder organisations were received. The topics raised in those submissions are discussed in Table 36.

Table 36: Summary of organisation draft LSPS submissions

Organisation	Topics raised
Evolve Housing	<ul style="list-style-type: none"> ● Supports housing primarily being provided in centres, allowing for diverse housing and access to public transport, community infrastructure, employment opportunities and open space. ● Notes the opportunity to provide specialised housing options as infill development in low density residential area and recommends further investigation of incorporation in Ryde LGA ● Highlights housing stress and housing affordability as key policy issue ● Supports collaboration with State agencies, Macquarie University and housing providers to develop affordable housing ● Suggests increases in affordable rental housing to offset higher value land uses associated with redevelopment of existing stock. ● Suggests focusing on affordable housing development projects, instead of 5 per cent to 10 per cent of each development, increasing efficiency of delivery.
Ryde Eastwood Leagues Club	<ul style="list-style-type: none"> ● Notes that LSPS does not address the needs of an ageing population ● Highlights that the Housing Issues Paper mentions seniors housing as a gap in the supply of housing ● Requests support of existing planning proposals enabling seniors living on Club sites.
NSW Health (Northern Sydney Local Health District)	<ul style="list-style-type: none"> ● Supports prioritisation of active transport, open space and place making throughout the LSPS.

Organisation	Topics raised
	<ul style="list-style-type: none"> ● Notes that the Ryde LGA’s demography has higher levels of disadvantage than the remainder of the health district. ● Recommends <ul style="list-style-type: none"> – increased open space provision to support the active recreation needs of households living in apartments – developments be pedestrian oriented to support active transport – locating affordable housing in proximity to public transport and employment hubs – street tree planting with the goal of increasing amenity, reducing heat stress (i.e. heat island) and shading to encourage walking – planning controls that apply residential development guidelines to meet the needs of various demographics (e.g. young families, people with disability and ageing in place) ● Supports the walkability of centres to support liveability
UDIA	<ul style="list-style-type: none"> ● Recommends a review of housing targets, following exhibition and finalisation of LSPSs in the region ● Recommends communication of timelines for completion of studies and consideration of masterplans ● Recommends an Urban Development Program that would monitor housing supply and provide feedback into policy development ● Supports Transit Oriented Design to enable density and amenity ● Recommends provision of affordable housing as an incentive mechanism to support the feasibility of development ● Recommends consideration of Macquarie Park as a mixed use precinct.

8.2 Housing futures focus groups

Ryde Council, Place Design Group and HillPDA hosted two focus groups on 21 September 2019 with members of the Ryde LGA community who expressed interest in becoming involved in the LSPS consultation process. A total of 41 community members attended the two sessions, with a total of four groups providing feedback regarding housing in Ryde LGA through three exercises:

- Visioning exercise: Participants provided words that defined what housing quality meant to them
- Building the housing story: Participants placed images of different types of housing on a map of Ryde LGA where they thought it belonged, identifying ‘the right house in the right place,’ with conversations about the reasoning for choices.
- Design quality deep dive: Group discussions regarding good and poor design outcomes in participant neighbourhoods, design priorities and what qualities are required now and into the future

Attendees were enthusiastic, highly engaged and well informed about the LSPS. Conversations and insights were informed and robust, with positive contributions made across all the groups and exercises.

Outcomes of the focus groups are discussed below, with a consultation report at Appendix A.

Community values

Participants were asked to give their top three words to describe what they value about housing in Ryde LGA, without limits to the subject. In response, participants contributed their views about a variety of matters that they believed were related to housing. Several themes were captured, including the importance of:



- Balancing housing diversity, with a presence for well-designed lower-density options
- Green spaces, ranging from gardens to parks to the natural environment
- Supporting uses, such as transportation, small commercial areas and community facilities
- Preserving communities and neighbourhood-type character

Design discussions

Design quality was discussed amongst the four groups, with table hosts guiding discussion. Each table offered its own unique views on what makes for poor design quality, what are important design considerations, and what designs should consider in the future. Themes raised are summarised in Table 37.

Table 37: Community’s views about design

What don’t you like about the design quality in your area?	What aspects of design are important?	What design considerations are important in the future/
<ul style="list-style-type: none"> ● New high-density developments are too boxy and do not fit in with the surrounding area ● Aging building stock is poorly maintained lacks modern amenity features ● Natural environment is not being preserved/maintained ● Poor privacy outcomes (visual and noise) 	<ul style="list-style-type: none"> ● Incorporation of natural environment elements (e.g. setbacks for trees, vertical/roof gardens and streetscape ● Adaptable design for all ages and abilities ● Environmentally responsive and sustainable design ● Access to open space, shops, services and infrastructure 	<ul style="list-style-type: none"> ● Occupant/neighbour amenity (size, visual/acoustic privacy, welcoming) ● Connectivity/walkability ● Coordination in development (e.g. master planning) ● Sustainability in design (e.g. building materials, ventilation, water recycling, solar power) ● Technology (e.g. electric vehicle charging, ‘smart’ services and internet infrastructure)

Typology mapping

Groups were provided with images of different types of housing and maps of the Ryde LGA, marked with transport infrastructure, existing centres and green space. These images were placed around the maps, with participants providing feedback on why areas were or were not chosen, with discussions regarding neighbourhood character and other housing options.

When sharing with the larger groups, general themes emerged:

- Support for secondary dwelling, aged care and terraced housing across the LGA to support downsizing/aging in neighbourhoods
- Denser/diverse housing should be tied to stations and transit nodes

- Transit nodes with established character were suitable for low/medium rise apartments (five stories), such as Eastwood and Denistone
- Taller (10-storey) high-density development should be placed around Meadowbank, Macquarie Park and Macquarie University
- Height/scale of buildings should be sensitive to surrounding features, such as:
 - Topography: Buildings should not dominate the visual landscape
 - Transport nodes: Buildings should reduce in scale the farther they are away from transport
 - Waterfront: Buildings should reduce in scale the closer they are to natural features.

8.3 Planning workshop

HillPDA and Studio GL undertook two workshops with Council staff, with the goal of capturing the local and historical expertise regarding the delivery of housing in Ryde LGA. These workshops focused on sharing the strengths and weaknesses of housing related planning controls, best practice and poor design outcomes, site testing various typologies based on existing and potential planning controls, and potential for housing delivery in the future.

Key issues identified by Council staff included:

- Housing diversity:
 - Housing is overly represented by low density (separate houses) and high density (apartments), with limited availability of medium density options
 - Housing sizes lacks variety, with very few smaller houses (e.g. two-bedroom) or larger apartments (three+ bedrooms) suitable for different households/demographics
- Design outcomes:
 - Medium density development can lead to poor design outcomes, such as dual occupancies that are very large with poor street presentation and villa development that is dominated by driveways
 - Voids within buildings increase bulk with potential for future unapproved conversion to floorspace
 - High rise apartment buildings are poorly spaced/oriented, leading to urban canyons
 - Difficult to ensure complying development leads to appropriate design outcomes
 - Mixed use development is delivering too much/poorly design ground floor commercial areas that remain vacant in the long term
- Site considerations:
 - Flood risk leads to raised development, with poor outcomes for surrounding residents
 - New builds often clear entire blocks, with limited ability to ensure replacement trees are retained in the long term
 - Local character is an unreliable assessment mechanism, especially for complying development
- Balance in centre development:
 - Development has largely been focused in the precincts of North Ryde, Macquarie Park and Meadowbank
 - West Ryde has had few development applications, despite access to regional road and rail networks
 - Need to balance centre development with cohesive masterplans/design outcomes
- Codes SEPP – Low Rise Medium Density Housing Code:
 - The SEPP will apply to all R2 Low Density Residential zoned land, allowing for dual occupancy, terrace housing and manor houses and complying development
 - Design guidelines/complying development processes are not suitable to ensure suitable outcomes
 - Transition to complying development is anticipated to lead to more dual occupancies that are not sensitive to surrounding character
 - Reduced frontage/lot size requirements will permit dual occupancies and manor houses in areas that do not have supporting infrastructure.

8.4 Real estate agent interviews

HillPDA has interviewed several real estate agents that are active within the Ryde LGA to gauge an understanding of the current demand for housing. More specifically, the type of housing and how the demand for a specific housing typology differs from client-to-client.

All agents reported that the majority of client interest was for a typical single dwelling (approximately 60 per cent to 70 per cent) followed by medium density (approximately 15 per cent to 20 per cent) and apartments account for the remainder. The consensus among the interviewed real estate agents indicated a growing trend of clients interested in medium-density housing (i.e. townhouses, villas and dual occupancies) that provide two and three-bedroom accommodation. An agent reported a preference for small sized townhouse/villa complexes with a front and/or rear yard. This is followed by low-rise apartments with larger internal areas and lift facilities.

Several agents have highlighted that although many of their clients prefer a larger villa or apartment, affordability is a major issue among the majority of their clients in particular for first home buyers and young families.

All agents agree that on-site car parking is an important factor, although affordability is still a determining influence on client's decisions.

The interviewed agents highlighted the following suburbs which are of interest to them:

- Macquarie Park due to the increased density, growth in population and well serviced amenities that include transport, education, retailing and medical use.
- Denistone East due to the suburb being serviced by a good public school.
- Top Ryde due to retailing.
- North Ryde due to the recreational services offered by North Ryde Golf Club.
- Melrose Park due to its proximity to the river, availability of transport, good sized lots and community-feel of the suburb.

Agents reported that demand for housing type differed by client, for example investors preferred apartments (one- and two-bedroom units) and owner-occupiers preferred medium density or single dwellings (two to four bedroom). More particularly, single and couples preferred one- and two-bedroom apartments, smaller families preferred two or three bedroom medium density or single dwellings, whilst seniors preferred two or three bedroom villas (single level) or apartments.

Agents have stated that they believe current stock meets current demand however, they would favour an increased supply of larger three-bedroom villas, townhouse, dual occupancy and apartments, and manor style housing to the market. Some agents have indicated a need for more one-bedroom units as a preference for older lone person households and investors as it yields a better return.

8.5 Summary

Issue area	Opportunity	Constraint
Town centres	<ul style="list-style-type: none"> Well provisioned with local services Good access to transit corridors and public transport 	<ul style="list-style-type: none"> Low-rise developed is highly fragmented Transport corridors can isolate/bisect areas
Low density residential areas	<ul style="list-style-type: none"> Diversity of housing types permissible, increasing supply Background growth occurs with minor variation to local character 	<ul style="list-style-type: none"> Smaller medium-density housing types have mixed design outcomes Inconsistent access to supporting infrastructure
Economics	<ul style="list-style-type: none"> Abundance of jobs within the LGA, compared to the population 	<ul style="list-style-type: none"> Jobs are specialised in certain industries, with limited benefits to containment
Transport infrastructure	<ul style="list-style-type: none"> Well serviced by north-south and east-west train lines Bus interchanges allow for mode-split Classified roads provide good regional connectivity 	<ul style="list-style-type: none"> Local-service bus network requires optimisation in low-density areas Transport corridors inhibit pedestrian movement Active transport network contains gaps
Social infrastructure	<ul style="list-style-type: none"> Schools, hospitals and Council infrastructure is well distributed Recent investment in social infrastructure has increased capacity and service levels 	<ul style="list-style-type: none"> Significant increases in public school enrolment will require sustained State investment Parks and playgrounds require embellishment and consolidation to meet the needs of the population
Heritage	<ul style="list-style-type: none"> Heritage controls preserve valuable aspects of local character Integration of heritage into new developments provides opportunities for unique and locally relevant design 	<ul style="list-style-type: none"> Heritage controls can restrict the ability to provide additional housing in proximity to supporting infrastructure
Environment	<ul style="list-style-type: none"> Major environmental features (e.g. Lane Cove National Park and the Parramatta River) provide substantial amenity and recreation benefits Smaller, distributed reserves provide local amenity and character alternatives to urbanised areas 	<ul style="list-style-type: none"> Varied topography can reduce feasibility of medium density development Flood and bushfire prone areas require specialist design solutions to minimise hazards to population and property.

KEY DIRECTIONS FOR HOUSING DELIVERY

9.0 KEY DIRECTIONS FOR HOUSING DELIVERY

This section sets out suggested strategies to encourage a housing supply to support housing delivery to 2036 to meet the diverse needs of the community and a growing population.

9.1 Housing objectives

Proposed housing objectives are:

- To plan for housing growth to meet the needs of a growing population with between 20,000 and 22,000 dwellings needed to 2036
- To ensure housing is inclusive by providing a mix of dwelling sizes, types and price points, allowing the current population to remain in the local area through different stages of life
- To encourage housing that is suited to the local character and respects local environmental constraints
- To establish programs to support management of housing growth and infrastructure delivery.

9.2 Key issues

The evidence and analysis provided in this Strategy offers the following key findings:

1. Current planning controls are likely sufficient to meet the demand anticipated by DPIE and forecast .id projections, offering Council the opportunity to adjust planning and design controls to target better dwellings, instead of simply more dwellings.
2. City of Ryde's neighbourhoods and centres provide a range of highly valued local character areas, ranging from low density and historically significant precincts, to established centres serving the local communities, to new high-density developments housing new households.
3. Centres offer opportunities to focus growth under current controls, with benefits associated with locating homes around public transport, community facilities and other infrastructure. However, multiple constraints appear to have delayed growth.
4. City of Ryde has recently delivered a large number of high-density dwellings, at some level at the expense of medium density development and stress on local infrastructure.
5. Demand for medium density development remains strong, with support for medium density development at the edge of centres both from existing and potential future residents.
6. Existing and anticipated future populations will require significant investment in State and local infrastructure.
7. Significant housing stress, lack of social housing options and employment characteristics suggest that affordable housing options, such as those outlined in Council's affordable housing policy would benefit the community.
8. A review of planning and design controls suggest that provisions relating to protection, delivery and maintenance of the natural environment, within and without individual lots, may not be delivering sufficient ecological and environmental amenity benefits.

9.3 Strategic directions

The strategic directions are summarised below.

 <p>Adopt housing delivery targets</p> <ul style="list-style-type: none"> Plan for an additional 20,000 to 22,000 dwellings by 2036 	 <p>Focus growth in centres</p> <ul style="list-style-type: none"> Review master planning Undertake feasibility testing Develop a program to manage growth 	 <p>Increase the supply of medium density dwellings</p> <ul style="list-style-type: none"> Expand medium density development around centres Encourage innovative and improved design outcomes
 <p>Match housing and infrastructure delivery</p> <ul style="list-style-type: none"> Review developer contributions plans Advocate for State infrastructure as needed 	 <p>Refine planning controls</p> <ul style="list-style-type: none"> Address current issues to achieve better design outcomes 	 <p>Improve housing design</p> <ul style="list-style-type: none"> Preserve local character Promote design excellence Encourage environmentally sensitive design
 <p>Mandate affordable housing</p> <ul style="list-style-type: none"> Continue to implement Ryde Affordable Housing Policy 	 <p>Mitigate Impact of Part 3B of the Codes SEPP</p> <ul style="list-style-type: none"> Obtain exemptions or amendments to relevant provisions of Part 3B of the Codes SEPP Part 3B 	 <p>Investigate areas for long term growth</p> <ul style="list-style-type: none"> Investigate nominated areas for potential increase residential

9.4 Adopt housing delivery targets

As discussed in Section 6, Ryde LGA is well placed to meet the Greater Sydney Commissions housing target for 2016 to 2021 period of 7,600 dwelling target. The current pipeline suggests that between 9,500 and 12,000 dwellings are anticipated to be delivered depending on market demand. This projection exceeds the Greater Sydney Commissions target by between 25 per cent and 57 per cent. This pipeline suggests that the LGA could deliver almost half of the entire North District target, making a substantial contribution to meeting the District's housing needs, the highest of any LGA In the District.

The Ryde LGA has a 2016 to 2036 theoretical capacity of approximately 35,043 additional dwellings. This greatly exceeds the ranges outlined in the forecast .id and DPIE projections. This would allow for market fluctuations to be accommodated, avoidance of supply constraints, and proactive planning to adapt planning controls to provide the right housing in the right locations.

The bulk of the development capacity is within centres and is likely to be associated with redevelopment of existing sites. Some low scale development associated with transitioning detached dwellings to dual occupancies is also anticipated.

The estimates provided in this report suggest that Council could plan for the following housing growth:

- 2016 to 2026 (10-year target): 12,000 additional dwellings
- 2016 to 2036 (20-year target): 20,000 to 22,200 additional dwellings

The following ranges are examples of how additional dwellings could be programmed over the five-year periods to 2036:

- 2016 to 2021: 7,600 additional dwellings
- 2021 to 2026: 4,400 additional dwellings
- 2026 to 2031: 4,400 to 5,100 additional dwellings
- 2031 to 2036: 3,848 to 5,000 additional dwellings.

9.5 Encourage development in centres

Centres in Ryde LGA are generally surrounded by R4 High Density Residential land, characterised by four story apartment buildings, and R2 Low Density residential land, characterised by a mix of separate houses and dual occupancies. Centres in Ryde, typically well appointed by transport, social and business services, provide an opportunity to accommodate residential density on their fringe.

Options for expanding housing in centres include:

- Rezoning land to low rise mixed use, effectively expanding the centre itself
- Rezoning land to R3 or R4 residential zones
- Retaining R2 zone and adding additional permitted uses/key site controls for denser housing.

9.5.1 Potential LEP amendments

While there is an adequate supply of residential land at present, investigation of opportunities to increase housing to meet the 2036 target is strategically prudent. Areas for investigation are described in Section 9.10.

Key areas for intensification could be mapped in Ryde LEP 2014 and designed with 'Additional local provisions' or 'Additional permitted uses.' Each has their own purpose, described below:

- Additional Local Provision: May refer to mapped land and allow for additional uses, requiring specific objectives and numeric controls to be achieved in order for those uses to be approved.
- Additional Permitted Uses: May refer to mapped land and allow for additional uses, relying on standard controls (e.g. mapped height and FSR controls)

The main advantage of Additional Local Provisions is that additional uses can be tied to development outcomes that are otherwise not achievable via the Standard Instrument at a local level. These may include dwelling density, site coverage and setbacks. An example of this in Ryde LEP 2014 is Clause 6.12, which requires maintaining a transition to adjoining residential uses, solar access for adjoining residential uses, and delivery of 1,200 m² of non-residential floorspace.

Additional Permitted Uses would be the preferred option if specific development outcomes are not required and the use is not desirable across an entire zone (e.g. allowing for a childcare facility on a portion of a public park zoned RE1 Public Recreation).

Developing Additional Local Provisions for expansion of centres should consider the preferred development outcome and the minimum controls required to achieve that outcome. Flexibility in controls is preferable to encourage update of the preferred use. Clauses may be written to be performance and objective based, rather than strictly numerical. This approach allows for Council to approve development that appropriately responds to site conditions.

9.5.2 Feasible built form

The growth of Ryde's centres is key to delivery of housing targets to 2036, with a theoretical capacity of over 17,000 additional dwellings based on current controls. Assuming a conservative 50 per cent completion rate, this could result in 8,500 dwellings to 2036. The bulk of the non-pipeline capacity is in Macquarie University/Herring Road Priority Precinct, Eastwood Town Centre and Ryde Town Centre. Controls in these areas generally allow for mid-rise development of approximately four to five stories.

In recent years, development in Ryde LGA town centres has been focused on large scale redevelopment delivered as State Significant Development or similar pathways. Residential development in the foreseeable future will be of a smaller scale, anticipated to be led by the consolidation of lots to produce single developments.

As evidenced by the general low level of development that meets height controls in non-State assessed centres, it can be difficult for landowners to feasibly develop land in the current environment. This may be due to issues with the sites (e.g. feasibility associated with high land values or other costs) or that current market demand has been taken up by larger developments, effectively pricing out medium-rise development.

In its current state, development in Ryde centres is likely to be unfocused, being triggered as individual sites can be feasibly developed to maximum building heights. This is beneficial, in that new development would not overwhelm existing character, but may produce inconsistent outcomes that do not align with the community's priorities. Recent developments along the periphery of Eastwood Town Centre are examples of how higher density development can appear on the edges of centres, where land can be consolidated more easily, but pull the focus away from the core of the existing centre.

The alternatives are to:

- Undertake feasibility analysis of centres and determine height controls that would make development feasible in the near term
- Update masterplans for the town centres to identify desired outcomes and associated increased height with the delivery of outcomes.

The second option is already partially undertaken for certain areas, with Ryde LEP 2014 Clause 4.3A offering bonus height where lots exceed a certain size or provide laneway access. This bonus height is most heavily applied in the Ryde Town Centre in an area currently occupied by four story residential flat buildings, with a maximum permissible height of four to five stories. A bonus six metres can be provided as mixed use development that provides laneway access. Six metres is effectively two additional stories of development.

The additional height generally has not been taken up in the area, suggesting that one or more of the following is true:

- Redeveloping four story residential flat buildings to six or seven story mixed use buildings is not feasible
- It is too difficult to coordinate development across multiple sites to achieve the 2,000 m² site area
- The provision of a laneway is otherwise not possible (i.e. mid-block sites).

Therefore, there is likely a disconnect between the bonus conditions and the achievability of the development that should be addressed.

Providing residential density in town centres will continue to be a priority for Ryde to 2036, with opportunities to link that density with infrastructure and public benefit an established position. Allowing for development to occur in the background is a sustainable strategy in the short to medium term. However, developing a program of review of centres over coming years will assist in identifying achievable controls that can pair dwelling delivery with key infrastructure. In the case of Ryde, such a program

As part of ongoing planning activities, Council should review and update masterplans relating to its centres on a rolling five-year basis. The purpose of these planning activities would be to identify the infrastructure needs of current and future communities, the success of planning controls in delivering high quality outcomes and potential planning and policy responses. Through this process, Council will be able to maintain relevant schedules of infrastructure works required to support the centres in the future.

9.5.3 Growth management

Council has previously undertaken multiple studies and masterplans for its centres, with the outcomes of those activities reflected in centre specific DCP plans, planning controls and policy documents. These activities provide clear benefits for the community generally, developers and Council asset delivery teams. Master planning provides an opportunity to review the success of previous policy and planning decisions, consider the needs of existing and future communities and adapt planning controls, services and infrastructure delivery in response.

Master planning of Council's centres could be timed with the five-year review cycle of the LEP, as required by the EP&A Act, providing guidance for that review. Matters considered by the rolling masterplans would include:

- Land uses within the centre and how those have changed in the previous five years
- Existing and forecasted population growth
- Existing and planned infrastructure, and the ability for that infrastructure to meet the needs of future residents, businesses, workers and visitors
- Suitability of planning controls to accommodate forecasted growth
- Suitability of planning controls to deliver financially feasible development
- Ability to deliver infrastructure and housing via contributions and inclusionary zoning
- Amenity improvements associated with public open space and streetscapes
- Public transport, road network and off-street parking analysis
- Identification of suitable centre-adjacent transition areas for medium density development.

Implementation of rolling masterplans will help ensure Council is on track to deliver housing diversity within centres, with timely consideration, anticipation and adaption to trends. Clear communication regarding the infrastructure needs of future communities will set clear expectations regarding the growth of centres to all relevant stakeholders, including residents, business owners, developers and external/State service and infrastructure providers.

Master planning will also aid Council in responding to planning proposals. Site-specific planning proposals are currently prohibited in Ryde and generally discouraged due to poor planning outcomes. However, they can

provide alternative views that reflect market trends. Clearly articulating infrastructure requirements can provide opportunities to tie infrastructure delivery to additional dwellings associated with planning proposals via voluntary planning agreements. Alternatively, 'bonus' height and FSR may be linked to infrastructure delivery via Additional Local Provisions in the LEP.

9.6 Increase the supply of medium density housing

Medium density housing, in the form of dual occupancy and villa development, is permissible with consent in all R2 low density residential zones. This has assisted with the provision of a variety of housing types interspersed with traditional separate houses. Development of these housing types has largely been opportunistic, relying on landowners to initiate development based on individual circumstances. Development, and therefore stress on infrastructure, has been distributed.

While this has been beneficial in maximising the efficiency of infrastructure assets, it is not sustainable as assets reach capacity. This will become increasingly problematic with the anticipated dwelling capacity associated with manor house development, to be made permissible with the introduction of Part 3B.

Council could respond by prioritising the development of medium density housing around areas with good access to supporting infrastructure. Potential options are examined in Section 9.10, to be considered further as part of coordinated land releases in future years. Any future rezoning should be Council-led, in partnership with State asset owners, and in consultation with the local community.

Housing in Ryde LGA is largely represented by two typologies: separate houses and high-density apartments, with medium density development being a minority. Research has shown that many households in Ryde may benefit from smaller dwellings that suit their needs without transitioning to an apartment lifestyle. The average household size in Ryde is expected to continue to fall, meaning larger homes may not be necessary for future populations.

While targeted provision of medium density housing around centres will aid in the delivery of alternative housing types, there remain opportunities to encourage diversity of market-rate housing for different types of occupants. In Ryde, this may include:

- Smaller low and medium density dwellings suited for couples and lone person households
- Highly accessible and liveable housing designed for seniors and disabled persons, outside of purpose-built complexes
- Student or key-worker focused housing in proximity to the university, hospitals or rail lines.

Recent development in Putney has shown how smaller-lot development can be delivered that is sympathetic to larger low-density housing typologies. The Putney Hill site, nearing completion since its early development in 2009, offers a range of small lot, semi-detached, attached and medium-rise apartments. As a masterplanned development, this range of dwelling types was planned and delivered over a number of stages. This included some of the earliest development being smaller and semi-detached dwellings that interfaced with the surrounding existing housing stock, with higher density development delivered later. As dwellings have been completed over the last seven years, this has allowed for the full development to become part of the local character.

Opportunities for development of a similar scale are limited, though lessons can be learnt about how to encourage similar outcomes on smaller sites. Targeted implementation of smaller homes should be considered in the longer term outside of centres, focused in areas where higher densities can be supported without reliance on private vehicle transport.

Council could consider expanding use of the R3 Medium Density Housing zone adjacent to centres, to provide a transition for more intense development in town centres to the R2 Low Density Residential zone and to increase housing choice.

In addition, Council could continue to be an advocate for medium density housing delivery in a zoned rather than developed manner, partnering with developers that are committed to providing high-quality and innovative design to achieve delivery.

9.7 Match housing delivery with infrastructure development

Ryde LGA's centres are generally well provisioned with infrastructure and services, including access to transport, open space, businesses and facilities. Lower density residential areas, while not always within walking distance to a full range of supporting infrastructure, have access to locally relevant options (e.g. parks, schools and local buses). Council provides regular updates to the community regarding investment in infrastructure, engaging and involving residents of Ryde in long term improvements in services.

Management approaches to the planned increase in housing to 2036 could include:

- Reviewing developer contributions plans to reflect the projected needs of the population
- Reviewing the application of planning agreements to encourage maximum benefit from future planning agreements
- Working with DPIE to implement alternative funding mechanisms for masterplanned infrastructure, such as Special Infrastructure Contributions or targeted increase of developer contribution levy caps
- Advocating for state funded infrastructure where needed.

As a core principle, planning proposals should not be supported in centres or investigation areas (discussed further below) until Council has completed masterplanning and identified contribution requirements to deliver infrastructure. In order to support the orderly provision of housing and ensure that long-term targets can be achieved, developer-led masterplanning should not be supported.

9.8 Refine planning controls

This section is about typology-specific planning control changes that could be considered to address some of the issues that emerged throughout the study

9.8.1 Separate houses

Separate houses will continue to be the dominant housing type in Ryde until the mid-2030s, with few opportunities to provide more of the housing type under current controls. Initiatives, such as reducing minimum lot sizes, are unlikely to be successful due to the substantial effort required to amalgamate lots and redevelop for minimal gain.

Planning controls relating to separate houses could focus more on redevelopment of single sites, with the intent of encouraging redevelopment that is of an appropriate scale and design for the local area. Implementation of DCP controls, such as side boundary envelopes (i.e. 45 degrees at 5 m above ground level or similar) and minimum permeable surface requirements would encourage more articulated and sensitive design outcomes.

9.8.2 Dual occupancy

A review of planning controls relating to residential development, particularly in light of the pending Part 3B controls, would provide an opportunity to address the above issues. The controls would need to balance the need to preserve and enhance the character of low-density residential areas while maintaining capacity for housing to meet future needs.

Dual occupancy and villa style development is relatively popular in Ryde and are permissible under (in part) the following controls:

- Dual occupancy:

- Street frontage of at least 20 m
- Lot size of at least 580 m²
- Multi dwelling housing (e.g. villa)
 - Street frontage of at least 20 m
 - Lot size of at least 900 m² (three dwellings) and 300 m² for each additional dwelling (up to 12).

Further controls are contained in Ryde DCP relating to parking, setbacks, private open space and other matters.

Permitting dual occupancy development in Ryde LGA has allowed for limited densification of low-density areas, with approximately 9,000 of 46,169 dwellings in 2016 being medium density (e.g. dual occupancy, townhouse, villa and one to two storey apartments). While this has had the benefit of generally maintaining the character of low-density areas, it has resulted in the following issues:

- Dwellings not addressing the street, resulting in mixed design outcomes
- Corner lot developments lacking appropriate private open space
- Side-facing dwellings overlooking neighbouring properties
- High amount of non-permeable surfaces (i.e. driveways)
- Reduction in urban canopy due to clearing
- Increase in pressure on infrastructure and services (e.g. parks, roads and waste collection).

Dual occupancies will continue to provide a valuable lower density alternative to separate houses, while retaining many of the characteristics associated with them. The following actions are suggested to meet this intent:

- The minimum lot size for the land use could be increased to approximately 750 m² to ensure dwelling capacity remains stable after the introduction of Part 3B.
- Amend Ryde LEP 2014 clause 4.1B to state ‘the primary road frontage of the lot is equal to or greater than 20 metres
- Investigate DCP provision to require rear vehicle access and garages on sites with laneway access
- Update DCP to require primary open space is located at the rear of the site, with secondary open space located at either the front or the rear of the site.

9.8.3 Apartment buildings

Apartment buildings, including mixed use development, will provide the bulk of additional housing to 2036 within Ryde’s centres. The design controls for apartment buildings are largely dictated by the Apartment Design Guidelines (ADG), providing limited opportunities for Council to directly resolve issues identified with recent large applications. It is understood that the ADG will be reviewed by the State government in the near future, presenting an opportunity to refine controls based on Council’s findings and concerns.

Otherwise, Council’s primary tools to ensure future apartment development in its centres is appropriate to the character of the area are height and FSR provisions. Master planning provides an opportunity to identify desired design outcomes and tie those to bonus height. Master planning should also consider the potential for reduction in car parking requirements in proximity to rail and other concessions that would help reduce the cost of development.

9.8.4 Boarding houses

Boarding houses are an uncommon housing type in Ryde, with two applications lodged in the last calendar year (September 2018 to September 2019), and are unlikely to become more common. However, they can present design related inconsistencies, as planning controls are outlined within the Affordable Rental Housing SEPP, which are generally broad in scope. While Council’s DCP provisions encourage design outcomes, they can be difficult to enforce unless supported by the SEPP.

Council's primary method of influencing the design of a boarding house is via a requirement within the SEPP for the design to be compatible with the character of the local area. The DCP outlines several design elements to be considered by the applicant. However, this is a largely reactive exercise by Council, requiring an assessment of the applicant's description of the local character.

The introduction of local character statements could help provide more certainty for the applicant regarding Council's intent for the character of low-density areas in Ryde. As these statements are developed, they could consider how boarding house design can adapt to the established character and ensure that they have a place for future housing delivery.

9.9 Improve housing design

Ryde currently allows a variety of housing across the LGA, including a mix of low, medium and high-density housing types. The bulk of suitable land has already been developed, with redevelopment being the primary option for further housing delivery. This presents challenges and opportunities for preserving and enhancing the design of housing in Ryde. Goals for housing design include:

- Identifying and preserving the valuable character of Ryde neighbourhoods
- Potential to improve the design of existing housing types, with a focus on:
 - Dual occupancies
 - Residential flat buildings and mixed-use developments
 - Boarding houses
- Developing design requirements for new medium density housing types
- Promote environmentally sensitive design.

The sections below outline these goals and the potential to deliver them.

9.9.1 Identify and preserving character

The evolving character of Ryde LGA is evident in the variety of housing across the LGA: from heritage sandstone cottages in Denistone; to clusters of 1970s walk up apartments surrounding centres; to contemporary high rise development in Macquarie University/Herring Road Priority Precinct; to infill dual occupancy and secondary dwelling redevelopment. Despite the variety of housing that exists, Ryde LGA has maintained areas of coherent character. These character areas are highly valued by the Ryde community, as expressed in the CSP and ongoing community consultation. While character must continue to evolve with the addition of housing into the future, new development must also be sensitive to the character, rather than replace it.

Development of housing should be sympathetic to local character, reflecting and building on existing elements. This may take the form of incorporating the features of a heritage conservation area into the design of a new home, building around existing vegetation or orientating living spaces towards the public domain. Identification of critical character elements will help protect elements that mirror the long-term aspirations of the Ryde community and maintain those in future development.

Heritage amendments transferred to the LEP are intended to help establish the character of the most sensitive areas by establishing heritage conservation areas. While this may reduce the housing capacity of certain areas that may be well placed to deliver housing (e.g. the area surrounding Denistone Station), the heritage character of these areas has been identified as being valuable for retention.

Additional options for preserving and shaping character may also be achieved through the proposed local character statement process, currently being developed by DPIE. As currently proposed, Council may identify local character areas on a new LEP map, which would reference a local character statement. The statement would identify objectives relevant to preserving or shaping the character in an area, with the goal of allowing for growth that was sensitive to the character of the area. A discussion paper and interim guideline for the process

were made available in mid-2019, with the final process yet to be formalised. Pending formalisation of the process, local character statements will provide valuable methods for ensuring the long-term viability of Ryde's local character.

Taking steps to mitigate the effects of Part 3B of the Codes SEPP would help retain the low-density character of the R2 zoned portions of Ryde. Likewise, rolling masterplans of existing centres, combined with targeted medium-density expansions, would leverage and enhance the walkable and transit-oriented character of those higher density areas.

Ryde's local identity is built on a combination of locally unique factors, representing a union of the natural environment, an evolving local culture and heritage that reflects the history of Sydney. Future housing is an opportunity to further enhance the character of the area, welcoming new residents with the opportunity to make Ryde their home, as others have before them.

9.9.2 Promote design excellence

A summary of design issues is outlined in Table 38, with potential responses.

Table 38: Design excellence recommendations

Housing type	Issue	Response
General	Public open space is often adjacent to residential development, with no specific controls relating to overshadowing of public open space.	<ul style="list-style-type: none"> Expand DCP controls relating to protection of private open space to also consider impacts on public open space.
	Primary setback controls reference an average of the two adjoining buildings. Adjoining buildings setbacks may conflict with the overall current/desired character of an area.	<ul style="list-style-type: none"> Adjust DCP for low-density development to reference a setback of 6.5 m or 'prevailing street setback,' being the neighbouring five properties Adopt medium density setback provision that allows for a reduced front setback of 4.5 m, when Council is satisfied with soft-landscaping provision.
Low density residential (general)	New builds include excessive voids that increase bulk and site coverage.	<ul style="list-style-type: none"> Voids above the ground level may provide for lightwells and air circulation Voids cannot be calculated as part of the GFA of a building, as per Standard Instrument definitions Introduce DCP control for boundary envelopes and articulation to discourage bulky design
Separate houses	Separate housing is being redeveloped to larger buildings, with fewer options for smaller low-density options.	<ul style="list-style-type: none"> Investigate areas for reduced minimum lot size Increase setbacks/landscaped coverage requirements
	Current typical height control of 9.5 m encourages '2.5 storey' buildings with less variation in design responses.	<ul style="list-style-type: none"> Reduce primary maximum building height in R2 zones to 8.5 m.
Dual occupancy	Development on corner lots may result in private open space for one dwelling addressing the street, resulting in poor privacy outcomes and street presentation.	<ul style="list-style-type: none"> Update DCP to require primary private open space does not address the street, with secondary open spaces allowed at either the front of the rear of the property.
	Current controls allow for corner sites with two frontages to be combined for the purposes of meeting the minimum frontage test, resulting in poor street presentation	<ul style="list-style-type: none"> Amend Dual occupancy frontage requirements in Ryde LEP 2014 to reference 20m primary frontage.
	Vehicle access at the front of dual occupancies can result in car-dominated street presentation and large vehicle crossovers.	<ul style="list-style-type: none"> Where dual occupancies have rear access, require vehicle access to be at the rear of the site.
	Part 3B controls will significantly increase the capacity in R2 zones due to a reduced minimum frontage requirements for dual occupancies.	<ul style="list-style-type: none"> Council is unable to 'turn off' the additional capacity without prohibiting dual occupancies in R2 zones, an undesirable outcome.

Housing type	Issue	Response
Villa (MDH)	<p>Housing type encourages extensive site coverage with reduced setbacks and deep soil requirements. Common areas are encouraged to be car-oriented (i.e. driveways), reducing permeable surfaces and pedestrian amenity. Side-oriented dwellings overlook neighbouring properties, with the potential for several private open spaces along a boundary.</p>	<ul style="list-style-type: none"> Capacity may be retained at roughly current levels by increasing the minimum lot size for dual occupancies Remove multi-dwelling housing as a permitted housing type in the R2 low density residential zone.
Shop top housing / Residential Buildings	<p>Large apartment development (e.g. near Meadowbank and Macquarie University) can have poor building separation and open space outcomes. Potential for ‘urban canyon’ effects that use minimum ADG separation.</p>	<ul style="list-style-type: none"> Poor design outcomes are largely due to multi-building developments on large sites. Future apartment builds are unlikely to be of the scale recently delivered in priority precincts. While ADG requirements will override local controls, Council may tie provision of bonus floorspace in centres to design excellence outcomes, including building separation and ground floor amenity.
	<p>Active frontage requirements are contained in certain centre-specific chapters of the DCP. The controls encourage high quality and street-facing design elements. Gaps exist with respect to tenancy design, public amenity and utilities.</p>	<ul style="list-style-type: none"> Prepare more detailed retail and commercial DCP provisions and mapping relating to public domain interactions.
	<p>Dwelling sizes are generally appropriate, with few instances of oversupply of bedrooms. Larger dwellings may become more popular, reducing future supply.</p>	<ul style="list-style-type: none"> Update the DCP to encourage a mix of primarily one, two and three bedroom units
	<p>Units are likely to be the primary affordable housing type, with a need to increase the affordability of market rate housing and specialised affordable housing</p>	<ul style="list-style-type: none"> Reduce car parking requirements in proximity to rail, potentially reducing costs by \$50,000 per underground car park Implement affordable housing planning proposal, tying uplift from rezoning to affordable housing provision
Boarding house	<p>Boarding houses can potentially be out of character in low-density residential areas, with limited options to encourage design outcomes.</p>	<ul style="list-style-type: none"> Planning controls are largely outlined in the Affordable Housing SEPP, with the primary non-numerical control being a character test. Local character statements can help encourage design outcomes for boarding

Housing type	Issue	Response
		houses, such as street presentation, landscaping and setbacks.
		<ul style="list-style-type: none"> Continue to approve boarding houses where the built form is consistent with the surrounding area.
Rear access	Laneways are becoming the primary entrance for more dwellings, resulting in additional pedestrian traffic, more complicated vehicle access and potential conflicts with services (e.g. garbage trucks).	<ul style="list-style-type: none"> Investigate a laneway policy that considers laneways in proximity to centres, master plans for embellishment, preferred access arrangements and the suitability of one-way access and footpaths.

9.9.3 Encourage innovative medium density housing typologies

Medium density housing types are a valuable addition to housing diversity, with the potential to provide denser housing types that are sympathetic to surrounding low density residential areas. While design outcomes have been mixed, the multi dwelling housing land use has provided positive outcomes in the form of housing delivery. Prohibiting the land use will introduce a gap in the Ryde housing framework which can be filled with different medium density housing types.

The ‘attached dwelling’ land use would be an appropriate mechanism to deliver terrace-style housing that addresses the street, with heights between two and three stories. Attached dwellings can be provided as Torrens or strata title, with options for underground parking as part of larger developments. Delivery of attached dwellings may be difficult on long and narrow blocks, which may require site amalgamation and rear access. The image to the right shows eight attached dwellings on two such lots.



An alternative would be low-rise residential flat buildings, similar to the 1970s flats on the periphery of existing centres, but with underground parking. The image to the right shows a design for 13 units on two lots, with a single underground access. This format is more appropriate bordering centres, where side-views are less impactful. Underground parking is important to maximise yield while maintaining high quality private open space.



Formats between two and three storeys would need to be considered from a feasibility perspective due to the high cost of underground parking. This may be offset by reduced car parking requirements.

9.9.4 Environmentally sensitive design

Ryde LGA/s environmental characteristics are as important to the quality of housing as the built form of the houses themselves. This extends from the landscaping of individual properties to the larger ecological network that encompasses the LGA. Maintenance of this network can be bolstered by revisiting DCP controls that relate to tree retention, while expanding the street tree network as part of new development.

Increased density may also lead to an increase in impermeable surfaces, an undesirable impact that can exacerbate flooding effects, reduce stormwater quality and increase residual heat. Adapting DCP controls to require a minimum permeable surface, rather than maximum site coverage, would encourage alternate outcomes with reduced impacts. These could include native rain gardens, permeable paving and vegetation retention.

Retention of trees and vegetation generally is critical to preserving the ecological character of Ryde. An urban canopy policy would examine the extent of the tree canopy within Ryde, building on the Street Tree Masterplan which focuses on public spaces. This policy would outline the benefits associated with an expanded urban canopy, set targets for expansion and aid Council in retaining established trees on private land.

9.10 Mandate delivery of affordable housing

Ensuring the provision of affordable housing is a current long-term objective of Council. This objective is critical to ensure the long term of affordable housing in Ryde. Ryde Council has recently adopted an affordable housing policy that includes the policy's seven guiding principles:

- Increase the amount of affordable housing available in Ryde LGA to households with very low, low and moderate incomes
- Protect the existing stock of low cost rental accommodation in the Ryde LGA
- Encourage a diverse range of housing in the Ryde LGA
- Collaborate with other councils and stakeholders in the region
- Advocate the protection and facilitation of affordable housing to other levels of government and the community
- Support households in housing stress
- Implement, evaluate and monitor the Affordable Housing Policy.

The Affordable Housing Policy sets a clear target of the equivalent of 5 per cent of all new housing growth will be affordable housing for key worker households.

Council has prepared a planning proposal to amend Ryde LEP 2014 to implement controls that will require affordable housing contributions in certain situations. This study reinforces the need for affordable housing in Ryde LGA.

Since the lodgement of the planning proposal, DPIE has released *Guideline for Developing an Affordable Housing Contribution Scheme* (2019). This guideline requires councils to undertake an assessment of local housing needs and the impact of the proposed contribution rate on the viability of development.

This study has reaffirmed the need for affordable housing in the Ryde LGA. It is beyond the scope of this study to investigate affordable housing options for Ryde LGA.

9.11 Mitigate the impact of Part 3B if the Codes SEPP

Part 3B of the Codes SEPP is scheduled to apply to the Ryde LGA in July 2020. As discussed in Section 6.4, this would increase the LGA’s theoretical housing capacity by approximately 19,000 dwellings. This is an unplanned for increase in dwelling capacity that would have impacts on the character and infrastructure requirements of Ryde LGA.

The primary drivers for the increased dwelling capacity associated with Part 3B of the Codes SEPP are:

- Permissibility of manor house typologies on smaller lots that are currently permitted for multi dwelling housing is permitted (is 600 m² compared to 900 m²)
- Permissibility of dual occupancies on lots with reduced frontages (15 m compared to 20 m).

Options for mitigating these impacts are limited, due to the structure of Part 3B controls. These include:

- Obtaining exemptions or amendments to relevant Part 3B controls to align with Council controls
- Amending Ryde LEP 2014 to adjust the triggers for Part 3B controls to:
 - Remove the permissibility of multi dwelling housing in R2 zones
 - Increase the minimum lot size of dual occupancy development.

The first option would require amendment of the Codes SEPP. As this is a State planning instrument, Council may advocate for amendment, but cannot take direct action. As such, this may be pursued as a longer-term strategy.

Amending Ryde LEP 2014 is an option that can be pursued in the immediate term. Table 39 identifies the capacity associated with Part 3B, potential responses and their impacts to dwelling capacity.

Table 39: Ryde LEP 2014 amendment impacts - Manor house and dual occupancy

Housing type	Current capacity	Part 3B capacity	Response	Capacity impact	Comment
Multi dwelling housing	2,265	16,803 (manor house)	Remove multi dwelling house as a permissible use in R2 zones	Reduction by 1,000 to 1,500 dwellings	Dual occupancy development will continue to be permissible on affected lots
Dual occupancy	3,936*	11,550*	Increase minimum lot size	Maintain current capacity	While the capacity will be maintained, the distribution will be changed

Notes: * Includes lots where multi dwelling housing or manor house are a permissible use

Removing the permissibility of multi dwelling housing in R2 zones would mitigate the dwelling capacity impacts of manor house development in Ryde LGA. However, this would reduce the overall dwelling capacity of Ryde LGA by approximately 1,000 to 1,500 dwellings. The impact is somewhat mitigated, as dual occupancy would continue to be a permissible land use on the sites. Certain larger sites may also qualify for subdivision.

The impacts of changes to the dual occupancy minimum lot size have been considered in Table 40.

Table 40: Dual occupancy lot size option analysis (15m frontage)

	Current 580 m2 20 m frontage	Part 3B 580 m2 15 m frontage	Option 1 700 m2 15 m frontage	Option 2 800 m2 15 m frontage	Option 3 900 m2 15 m frontage
Dual Occupancy Capacity	3,936	11,550	5,340	2,896	1,836

Option 2 aligns most closely with the current theoretical development capacity of dual occupancy development, with equilibrium somewhere between minimum lot sizes of 700 m² and 800 m². However, as noted above, this option would also impact the distribution of dwelling capacity associated with Ryde LEP 2014. Conceptual analysis of the effects on distribution has indicated that increasing the minimum lot size of dual occupancies would shift distribution towards central and western Ryde, towards the T9 rail line and established centres.

The specific minimum lot size should be considered in association with the development of a planning proposal, recommended to be between 700 and 800 m².

It is acknowledged that this is a conservative interpretation of the SEPP’s frontage controls. The controls also allow for dual occupancy development on a frontage as small as 12 m, where vehicle access is at the rear of a site, either on a corner lot or rear laneway. Due to limitations on the ability to identify lots with potential rear, it is not possible to confidently identify which lots would benefit from the 12 m minimum frontage. However, the following table identifies the potential maximum impact of the reduced frontage.

Table 41: Dual occupancy lot size option analysis (12m frontage)

	Current 580 m² 20 m frontage	Part 3B 580 m² 12 m frontage	Option 1 700 m² 12 m frontage	Option 2 800 m² 12 m frontage	Option 3 900 m² 12 m frontage
Dual Occupancy Capacity	3,936	14,520	6,407	3,414	2,105

As shown in the table, the increase in identified lots in the options is between 12 per cent and 20 per cent. This reflects that larger lots with narrow frontages are an uncommon subdivision pattern.

9.12 Investigate areas for long term growth

Removal of multi-dwelling housing as a permissible land use in the R2 Low Density zone as proposed by Council, would reduce the medium-density housing capacity of the R2 zone across Ryde by between 2,300 and 3,000 dwellings. This change is required in order to mitigate the effects of Part 3B and maintain the low-density character of out-of-centre residential development.

If unmitigated, the reduction would reduce housing density and diversity, leading to poor housing outcomes. Focusing medium-density development adjacent to existing centres would effectively mitigate the impact, with the potential to increase the feasibility of development with well-planned controls.

An analysis of five areas across Ryde has been undertaken, considering the potential benefits of introducing housing types that are denser than the current typical separate house development in the area. These investigation areas immediately adjoin centres and may accommodate growth mitigating any potential loss of multi dwelling housing.

The following assumptions have been used to guide the analysis:

- Investigation areas are measured in total area, reflecting the objective to combine and develop lots
- Developable area is 80 per cent land dedications for roads and supporting infrastructure
- Average dwelling size is 100 sqm, reflecting smaller units associated with medium density housing
- FSRs of 0.5 and 0.8 testing, reflecting a range of development outcomes

The investigation areas are discussed below, with figures and tables describing the outcomes of the investigations. It is recommended that the potential for these areas to be incorporated in the Ryde LEP 2014 Additional Permitted Uses map or a new Key Sites map, permitting the ‘attached dwelling’ or ‘residential flat building uses with consent. Implementation should follow master planning of the centres, as further detailed in above.

9.12.1 West Ryde



Topic	Response
Area	300,000 m ²
Included lots	360
Developable land area (total)	240,000 m ²
Developable land area (FSR 0.5:1)	120,000 m ²
Developable land area (FSR 0.8:1)	192,000 m ²
Dwelling range	1,200 to 1,900
Strengths	<ul style="list-style-type: none"> ● Close to T9 rail line and bus interchange ● Close to library and school ● Close to major parks ● Mixed potential for rear access
Weakness	<ul style="list-style-type: none"> ● Rear access is inconsistent with some long narrow blocks ● High land values may slow redevelopment ● Existing dual occupancy development
Priority	High

West Ryde is a high priority for introduction of targeted medium density housing in the near term, following development of detailed design guidelines. Rear laneways provide opportunities for garages at the back of new attached dwellings, which would encourage the front of dwellings to focus on landscape and streetscape amenity.

Areas directly adjacent may have potential for low-rise apartment development, if paired with underground parking and design that protects the privacy of neighbours.

9.12.2 Melrose Park

Topic	Response
Area	240,000 m ²
Included lots	320
Developable land area (total)	192,000 m ²
Developable land area (FSR 0.5:1)	96,000 m ²
Developable land area (FSR 0.8:1)	153,000 m ²
Dwelling range	960 to 1,530
Strengths	<ul style="list-style-type: none"> Proximal to planned light rail station at Melrose Park and existing services at Meadowbank Adjacent to transforming light industrial precinct Near public school and significant open space
Weakness	<ul style="list-style-type: none"> Future of light rail is uncertain Poor access to supporting businesses Poor rear access
Priority	Low

Melrose Park is on the border of Ryde and City of Parramatta, primarily comprised of separate houses, with a mix of dual occupancy and multi dwelling housing development. The Melrose Park precinct, within City of Parramatta is currently used for light industrial purposes. The potential development of the area is outlined in City of Parramatta’s *Melrose Park Southern Precinct Structure Plan*, which considers transforming the precinct to a mix of high and medium density residential uses. A new town centre is tentatively planned in the northern portion of the precinct. Realisation of the precinct is subject to the approval of future planning proposals and development applications.

The Melrose Park investigation area is also proximal to the potential site of a light rail station, developed as part of Stage 2 of the Parramatta Light Rail project. Timing for development of Stage 2 has not been confirmed.

Introduction of targeted medium density uses in the Melrose Park investigation area is highly dependent on delivery of the Melrose Park structure plan and light rail. Until additional certainty on the timeframe of these developments is available, the priority of the investigation area is low.

9.12.3 Epping Road

Topic	Response
Area	525,000 m ²
Included lots	550
Developable land area (total)	420,000 m ²
Developable land area (FSR 0.5:1)	210,000 m ²
Developable land area (FSR 0.8:1)	336,000 m ²
Dwelling range	2,100 to 3,300
Strengths	<ul style="list-style-type: none"> Fair access to public transport Fair access to supporting businesses Good access to public open space and schools
Weakness	<ul style="list-style-type: none"> High exposure to road noise Poor pedestrian amenity on Epping Road Road access via limited local road network
Priority	Low to Medium

The southern side of Epping Road is primarily zoned R2 Low Density Residential, with properties generally facing south to the local road network, with limited exceptions. Acoustic amenity in the area is poor due to the high traffic volume along the Epping Road corridor, which is only occasionally screened by vegetation or larger developments. Pedestrian amenity is also poor, with limited footpaths on internal roads and exposure along Epping Road.

Access to public transport is fair along Epping Road, which has a bus stop every 500 to 800 m. While portions of the investigation area are technically within the 800 m walking catchment of Metro stations, access across Epping Road is very limited, requiring multiple high exposure street crossings that typically discourage pedestrian movement.

Transition to attached dwellings would be difficult to promote in a structured way due to lot configurations and the nature of the road network. Low-rise development would be more appropriate for the Epping Road environment but would require road access via the southern network due to crossover and access restrictions to Epping Road.

It is unlikely that the entire investigation precinct is suitable for transition to medium density housing types due access restrictions. Any transition should be supported by a Council-led feasibility analysis and traffic analysis undertaken in medium term to determine appropriate controls. Analysis should focus on areas in proximity to road crossings that provide access to the Metro network.

9.12.4 Eastwood

Topic	Response
Area	120,000 m ²
Included lots	125
Developable land area (total)	96,000 m ²
Developable land area (FSR 0.5:1)	48,000 m ²
Developable land area (FSR 0.8:1)	76,800 m ²
Dwelling range	480 to 768
Strengths	<ul style="list-style-type: none"> • Close to T9 rail line and bus interchange • Access to local shops • Close to library and school
Weakness	<ul style="list-style-type: none"> • Poor rear access without amalgamation • Difficult to delineate the end of the investigation area
Priority	<ul style="list-style-type: none"> • Low to Medium

The Eastwood investigation area is to the south-east of Eastwood Station, extending south to Fourth Street east to Ryedale Road. The area is generally zoned R2, with a mix of separate houses, dual occupancies and multi dwelling housing. The former Ryde Eastwood Leagues Club site at the centre of the investigation is currently under construction, with 31 dwellings to be delivered when complete. The investigation area presents an opportunity to increase housing density within a discrete area adjacent to the centre, with an outcome similar in scale to the Ryde Eastwood Leagues Club site.

Densification of the area is complicated by the flood prone nature of the area. Uplift would require careful consideration of the potential impacts of additional development and the need for clear areas to accommodate overland flow paths.

Additional dwellings may result in additional vehicle access points to First Avenue, generally an undesirable outcome due to the busy nature of the road and pedestrian connections to the surrounding area. Careful consideration should be given to access requirements and potential mechanisms to encourage vehicle access via Second Avenue.

While the proximity to Eastwood Station and nearby apartment and mixed-use housing types make the area attractive for additional density, the complexities of the area should be investigated further. This may be undertaken as part of a future masterplan for Eastwood.

9.12.5 Gladesville

Topic	Response
Area	90,000 m ²
Included lots	100
Developable land area (total)	72,000 m ²
Developable land area (FSR 0.5:1)	36,000 m ²
Developable land area (FSR 0.8:1)	72,000 m ²
Dwelling range	360 to 576
Strengths	<ul style="list-style-type: none"> • Access to local shops and entertainment • Proximity to social and recreation infrastructure • Regional access via Victoria Road
Weakness	<ul style="list-style-type: none"> • Adjacent to light industrial area, with some potential amenity issues
Priority	Medium to high

The Gladesville investigation area is to the north of the Gladesville Centre, adjacent to Monash and Westminster parks. The area provides the potential for medium density housing, with particular benefits associated with rear access gained by amalgamating properties along Owen Street.

The north-western portion of the area backs onto a light industrial area. Low-rise residential flat buildings in this area may provide better outcomes than the current separate houses. These benefits could include common spaces that do not address the industrial boundary, orienting non-sensitive uses towards the rear of the site, and aligning views to the side and street.

9.13 Non-planning mechanisms

Non-planning mechanisms offer opportunities for Council to influence the delivery of high quality and diverse housing within Ryde LGA. This can range from working with local businesses and residents to determine local infrastructure requirements to advocating for major policy at the State level. These mechanisms are discussed below.

9.13.1 Amenity and community-based infrastructure improvements

Local government is often a major, if not largest, landowner in LGAs across NSW. Council assets are many and varied, including offices, depots, parks, community halls and parking lots. Council infrastructure also includes stormwater, local roads and in more regional areas, local water and power distribution. With such a wide range of assets, the design and delivery of these assets can be a large influence on local character.

Council has made a significant investment in the provision of public open space across the LGA. However, there remain areas that are isolated from parks and reserves. While land acquisition in highly desirable areas such as Ryde's centres is difficult and costly, an ongoing plan for acquisition and embellishment can help ensure that the character and amenity of centres is preserved. The plan should consider place-based requirements, with future delivery being sensitive to local needs (e.g. playgrounds, plazas, seating and land/hardscaping).

Further, community assets such as libraries and halls serve many segments of the larger community, providing social and educational benefits. These assets, potentially delivered as part of private or stand-alone development, must be maintained and added to as the population grows into the future.

The Ryde LGA currently maintains several asset management strategies, largely developed between 2012 and 2016. These should be revisited on a regular basis, considering projected centre and non-centre population

growth, as well as an overall centre-based infrastructure delivery strategy. This would allow for future master planning of centres to incorporate prioritised infrastructure, as well as the potential for privately delivered infrastructure.

9.13.2 Local development partnerships

With the future implementation of Council's affordable housing requirements, the role of community housing providers and private sector developers in providing affordable housing into the future will grow. Maintaining relationships with these sectors, as well as fostering relationships between them will be an important Council function. By communicating needs and expectations, Council will be able to ensure that the housing stock dedicated via future consents is appropriate to the needs to the people that occupy them.

Further, it is expected that community housing providers will continue to acquire additional stock separate to affordable housing contributions. By providing for a forum for community housing providers and private developers, Council will also be able to assist developers that may otherwise be unaware of the potential to partner with providers on future projects.

9.13.3 Local policy development

Council's primary policy that relates to design of housing is the DCP. Opportunities exist to further develop policy that relates to the larger design and character-based objectives of the LGA. With population growth expected across the entire LGA, including centres and non-centres, policy should be developed to be applicable to high and low density areas. Two key policy gaps have been identified that relate to housing provision in Ryde: a unified urban tree canopy policy and a laneway embellishment policy.

Council's *Street Tree Master Plan 2013* provides guidance to Council primarily on the preferred tree species to plant in Ryde and where to plant them. While this provides sound guidance for Council for the management of public spaces, application to private areas is limited. An urban tree canopy policy would take a qualitative and quantitative analysis of the benefits of a whole-of-LGA approach to maintaining and strengthening the urban canopy. This may include cooling, biodiversity and amenity. It would establish private and public trees as critical social and environmental infrastructure, with guidelines on how to manage the overall canopy, rather than each tree individually. Finally, it would provide guidance to Council and private/public sector developers on the status of the urban canopy network in relation to other infrastructure networks.

A recent increase in laneway-facing development associated with secondary dwellings and dual-access villas has presented a need for a unified long-term approach to laneway management. This is expected to become more pressing as terrace and rear-loaded dual occupancy development recommended by this strategy is developed. A laneway policy should consider issues such as:

- Access requirements for services (e.g. waste disposal and bin storage)
- Suitability of certain lanes for one-way traffic
- Preferred engineering-based traffic calming measures
- Potential benefits and design guidelines for kerbing/guttering
- Incorporation of water-sensitive urban design measures.

Development of a laneway policy can be prioritised in centre-adjacent expansion areas as part of future planning proposals to allow for input from the local community and relevant service providers.

9.13.4 Partner with State agencies on regionally significant projects

Ryde has been the centre of the delivery of significant private and public development, from the establishment of Macquarie University in 1964, the opening of the Lane Cove Tunnel in 2007, the introduction of the Sydney Northwest Metro in 2019, and the ongoing development of the Macquarie, North Ryde and Meadowbank

centres. These locally and regionally significant projects have influenced the long-term development of Ryde, ensuring its importance for Greater Sydney into the future.

Further large private and public development may continue into the future, with design and assessment being the ultimate responsibility of State agencies. Partnership with these agencies, communicating the effects of large-scale development on the housing landscape of Ryde, should continue. This may include:

- Provision of social infrastructure, such as hospitals and schools, to service the future population of Ryde
- Major residential development, which should seek to increase both the social and affordable housing provision in Ryde
- Dedication of land to Council for the purpose of public open space or Council infrastructure (e.g. libraries or community centres)
- Consideration of supporting infrastructure, including transport infrastructure upgrades to support growth
- Influence of the design of public and private development to ensure design is sensitive to the character of the surrounds.

Council may influence development outcomes through early policy development and advocacy, if not direct assessment. A clear policy position on the above matters would help ensure that future development works towards Council's priorities for delivering and servicing future housing.

While State Government routinely engages with local government regarding specific initiatives (e.g. providing draft guidelines for comment or stakeholder engagement), Council is well positioned to initiate policy advocacy. Potential advocacy areas are provided below:

- NSW Department of Education
 - Develop primary and secondary school infrastructure that is centre-accessible
 - Undertake analysis to determine need for additional secondary school in northern Ryde LGA
 - Identify requirements to accommodate sustained growth of approximately 6 per cent per annum
- Transport for NSW
 - Participate in master planning initiatives in centres
 - Improve pedestrian amenity and permeability at classified roads in centres
 - Provide funding for active transport network to support growing population
 - Ensure local bus routes provide best possible access to the larger transport network
- Department of Planning, Industry and Environment
 - Fast track affordable housing policy implementation
 - Continue prohibition of private spot rezonings
- Property NSW/Department of Communities and Justice (previously FACS)
 - Net increase of both affordable housing and social housing provision on all government initiated development
 - Provide additional homeless and emergency accommodation options for all demographic profiles
- NSW Health
 - Coordinate hospital expansions with expected housing growth
 - Encourage location of local healthcare facilities (i.e. HealthOne NSW) in centres.

ACTION AND MONITORING PLAN

10.0 ACTION AND MONITORING PLAN

This section draws actions from the strategy and identifies the owner of the task and a timeframe for implementation. Actions include planning and non-planning mechanisms to provide a complete view of the roles and responsibilities for delivering the directions identified.

Timeframes have been provided to generally align with the target periods outlined in the District Plan:

- Near term: Before July 2020
- Short term: 2020 to 2021
- Medium term: 2021 to 2026
- Long term: 2026 to 2036.

It is noted that Council is not the owner for all actions. Given Ryde's position as a regionally significant LGA is Greater Sydney, State government will also be responsible for planning and delivering key infrastructure and certain planning outcomes.

Table 42: Adopt housing delivery target actions

Action	Primary stakeholder	Timeframe
Adopt housing delivery targets for 2016 to 2021 and 2021 to 2036.	City of Ryde GSC	Near term
Mitigate effects of the implementation of Part 3B of the Codes SEPP (SEPP Exemption or Planning Proposal).	City of Ryde DPIE	Near term
Develop centre masterplan investigation schedule.	City of Ryde	Short term
Conduct West Ryde Centre masterplan investigation	City of Ryde	Short term
Develop West Ryde Centre masterplan.	City of Ryde	Medium term
Implement West Ryde Centre planning proposal.	City of Ryde DPIE	Medium term
Undertake annual review of residential development applications and actual dwelling delivery.	City of Ryde	Ongoing

Table 43: Focus growth in centres actions

Action	Primary stakeholder	Timeframe
Develop centre masterplan investigation schedule and method.	City of Ryde	Short term
Conduct West Ryde Centre masterplan investigation.	City of Ryde	Short term
Develop West Ryde Centre masterplan.	City of Ryde	Medium term
Implement West Ryde Centre planning proposal.	City of Ryde DPIE	Medium term
Conduct remaining centre masterplan investigations and implement findings.	City of Ryde	Medium and long term
Undertake annual review of growth in centres to track background growth, lot consolidation and need for masterplanning.	City of Ryde	Ongoing

Table 44: Increase the supply of medium density dwellings actions

Action	Primary stakeholder	Timeframe
Identify preferred medium density typologies for transition areas around centres, including heights, built forms and overall densities.	City of Ryde	Short term
Identify preferred planning control for permitting medium density housing (eg zone, key site map, or other provision).	City of Ryde DPIE	Short term
Investigate area immediately surrounding West Ryde centre and identify medium density transition area.	City of Ryde	Short term
Implement West Ryde medium density planning proposal.	City of Ryde DPIE	Medium term
Conduct remaining medium density investigations and implement findings.	City of Ryde	Medium and long term
Review planning controls to identify opportunities to promote planned and staged small lot development outside of major centres.	City of Ryde	Medium and long term
Undertake annual review of medium density residential applications and dwelling delivery to track uptake of permissible uses	City of Ryde	Ongoing

Table 45: Match housing delivery with infrastructure development actions

Action	Primary stakeholder	Timeframe
Undertake annual reviews development contribution plans and asset delivery plans in the context of long-term growth	City of Ryde	Ongoing
Develop and communicate infrastructure requirements as part of masterplanning exercises.	City of Ryde	Ongoing
Consider and identify need for alternative State and developer funding mechanisms for significant assets required to support long-term growth	City of Ryde DPIE	Short and medium term

Table 46: Refine planning controls actions

Action	Primary stakeholder	Timeframe
Review and refine DCP provisions for separate houses with goal of improving design outcomes (e.g. side boundary envelopes, minimum permeable surface requirements).	City of Ryde	Short and medium term
Clarify dual occupancy frontage requirement to be primary, not combined frontage.	City of Ryde	Short term
Review dual occupancy DCP provisions to improve street presence (e.g. requiring rear access where available and private primary open space).	City of Ryde	Short term
Work with DPIE to refine the ADG to help ensure that apartment development is appropriately designed for centres.	City of Ryde DPIE	Short and medium term
Investigate, develop and implement local character statements relating to key low density areas in Ryde.	City of Ryde DPIE	Medium term

Table 47: Improve housing design actions

Action	Primary stakeholder	Timeframe
Identify locally relevant existing and preferred character across Ryde, as defined by previous and pending studies, such as heritage reviews, local character statements and masterplanning.	City of Ryde	Short and medium term
Review design issues and responses outlined in this LHS and amend DCP as appropriate.	City of Ryde	Short and medium term
Encourage innovative medium density typologies with potential for attached, abutting and low-rise apartment development to be permitted in medium density targeted areas.	City of Ryde	Medium and long term
Promote environmentally sensitive design by retaining and expanding the ecological network on private land and public areas.	City of Ryde	Short term
Undertake annual reviews of planning outcomes in City of Ryde and consider lessons learnt for design-related controls.	City of Ryde	Ongoing

Table 48: Mandate delivery of affordable housing actions

Action	Primary stakeholder	Timeframe
Implement Council's Affordable Housing Policy, including 5 per cent of all new housing to be affordable housing for key worker households.	City of Ryde DPIE	Short term
As part of future centre masterplanning, undertake feasibility analysis to support a future affordable housing contribution scheme for specific centres.	City of Ryde	Medium and long term
Undertake annual review of affordable housing delivery and work with State and community housing providers to track anticipated delivery.	City of Ryde Community housing providers Department of Communities and Justice	Ongoing

Table 49: Mitigate the impact of Part 3B of the Codes SEPP actions

Action	Primary stakeholder	Timeframe
Seek exemption from relevant provisions of Part 3B of the Codes SEPP in the Ryde LGA.	City of Ryde DPIE	Near term
If exemption is not possible, identify preferred dual occupancy lot size.	City of Ryde	Near term
If exemption is not possible, develop planning proposal to prohibit multi dwelling housing in R2 Low Density Residential areas and increase minimum lot size for dual occupancies.	City of Ryde DPIE	Near term
If exemption is not possible, seek temporary extension of deferment while planning proposal is being finalised.	City of Ryde DPIE	Near term

Table 50: Investigate areas for long term growth actions

Action	Primary stakeholder	Timeframe
Prioritise the West Ryde centre and immediately surrounding area for growth in the medium term.	City of Ryde	Short and medium term
Monitor growth in centres and identify investigation schedule for remaining centres and investigation area.	City of Ryde	Medium term
Develop and implement masterplans for remaining centres and investigation areas.	City of Ryde DPIE	Medium and long term
Undertake routine reviews of planning outcomes in masterplanned areas to determine likely longer term housing delivery outcomes.	City of Ryde	Ongoing

Table 51: Non-planning mechanism actions

Action	Primary stakeholder	Timeframe
Revisit and revise asset management strategies with the goal of supporting projected population growth	City of Ryde	Ongoing
Partner with community housing providers and private sector developers to maximise affordable housing delivery	City of Ryde	Ongoing
Develop urban tree canopy policy for private and public areas	City of Ryde	Short term
Develop laneway embellishment policy to support rear-access development	City of Ryde	Short term
Engage with State government to encourage high quality development that aligns with the housing vision	City of Ryde DPIE	Ongoing
Advocate for the provision of infrastructure to support the needs of projected populations.	City of Ryde DPIE NSW Health NSW Department of Education Transport NSW Property NSW Department of Communities and Justice	Ongoing

APPENDIX A: COMMUNITY ENGAGEMENT OUTCOMES

place
design
group.

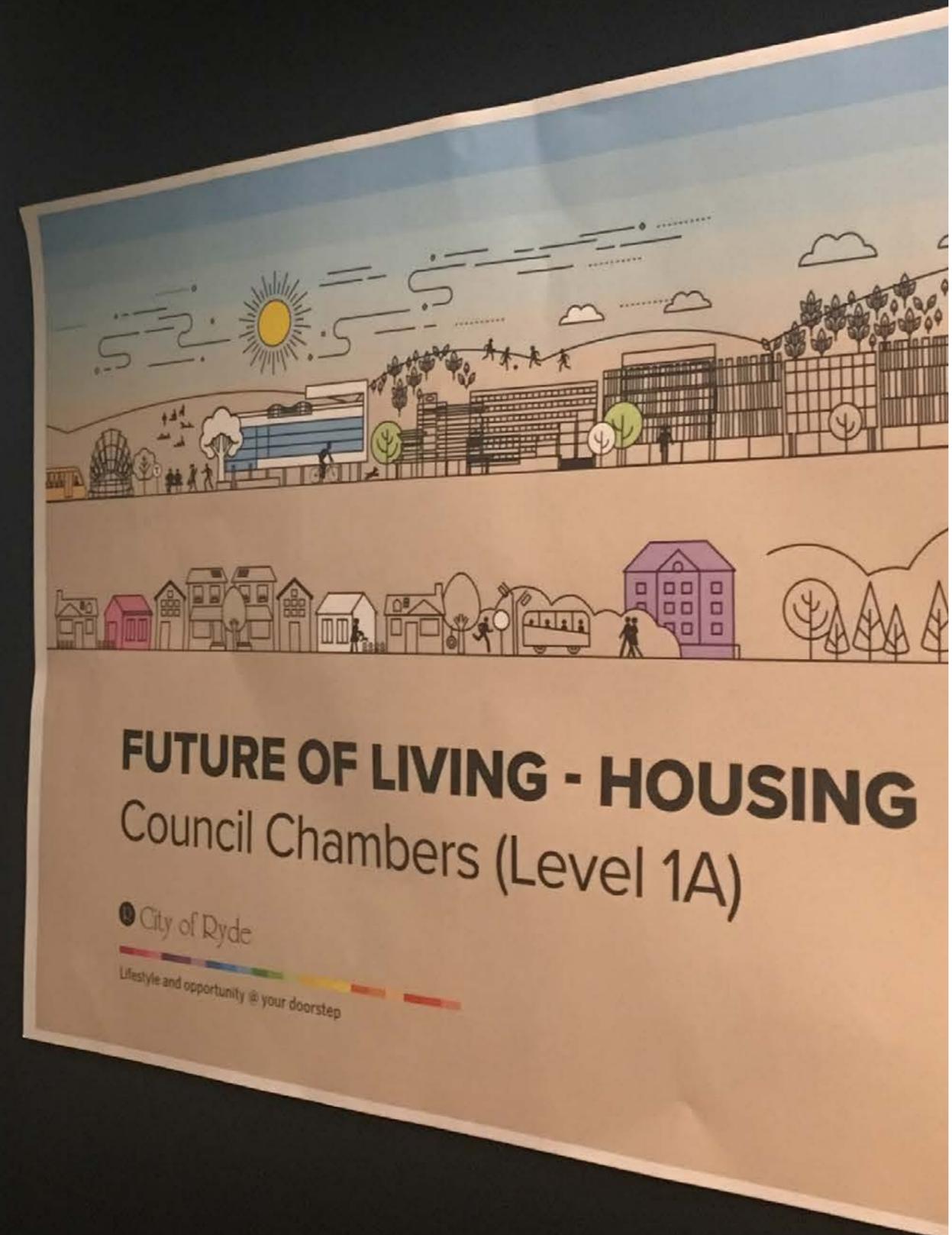
RYDE HOUSING STUDY ENGAGEMENT REPORT

NOVEMBER 2019

 City of Ryde

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Introduction

There has been much conversation, consultation and community engagement around housing and density within the Ryde LGA in recent times. It's a hot topic. And one that the community is passionate about. And as such, the issue of density has received much attention, and has dominated the focus of many opportunities for the community to have their say on the issue.

But what about the broader picture?

Housing is a multifaceted topic. Things such as form, design quality, location, typologies, character, sustainability and more, also play important roles in the future liveability of the area.

For the purposes of Ryde's Local Strategic Planning Statement's (LSPS) Housing Study, Place Design Group was engaged to look at the bigger picture inclusive of density insights, but in addition to all of the other elements that make up the future liveability picture for the LGA.

And, if the LSPS is to look to the future and plan for the next 20 years of housing within the LGA, it needs to ensure all aspects of the picture are looked at, not just one part of it.

This report summarises the stakeholder engagement sessions undertaken to support this, and inform the Ryde Housing Study's Engagement Report. This engagement work feeds into other council engagement work happening across the LGA as part of the of the broader LSPS project to develop a New Planning Framework for the City.

The City of Ryde consequently engaged Place Design Group via project lead, HillPDA, as engagement consultants for the housing study. We encourage you to read on and learn more about the communities thoughts, ideas and vision for the whole housing picture and future livability in Ryde.

How we engaged

Attendee Mix

Place Design Group selected a diverse mix of community members via random sampling methods utilising a pre-approved council list of residents who showed interest in attending council workshops after completing the broader LSPS survey.

A slight oversubscription of RSVPs numbers was achieved, indicating strong interest from community members, with a total of 20 people for session one, and 21 people for the second session.

Attendees were enthusiastic, highly engaged and generally informed about the LSPS project and purpose, perhaps this is because they had previously participated in the project survey process. Therefore, the quality of conversation and insights gathered were at a more informed and robust level which made for great round table conversations.

At the end of the sessions, attendees were given a voucher as a thank you for their contribution, time and insights.

The Sessions

Place Design Group was engaged to host two (2) workshop sessions featuring a total of four groups of residents.

A project team member from study lead, HillPDA and two council staff were also in attendance supporting the facilitation.

Across the course of two hours, each session ran to an identical agenda which included three core elements:

1. An introduction to the team and project, Acknowledgement to country and housekeeping.
2. A housing study presentation – presenting the findings to date to inform the group to the best of the project teams ability.
3. A workshop around the Future of Living In Ryde and session summary.

The Workshop

Exercise #1: Warm Up Visioning Exercise

For the first exercise, the room was split randomly into two tables of ten (10) participants. Each participant will be asked to provide three (3) words each that define housing quality to them as individuals. A representative from each table was then asked to share a summary of these with the rest of the room (please refer to page 6 of this report).

Exercise #2: Building the Housing Story

Participants were given a series of housing typology images (8 sets of each type, per table) ranging from modern apartments, taller typologies through to smaller typologies such as duplexes and granny flats, boarding houses, aged care, character homes, etc. (please refer to page 8 of this report).

Participants were then asked to stick the images/typologies to a map of the Ryde LGA (each table having one map to work over). Any typologies that were not desired from the deck provided were added to the side with the reason noted next to it.

Table hosts guided conversations around the primary concept of placing the 'right house in the right place'. In addition to this, other periphery insights were developed including the identification of character areas, and other housing picture opinions.

At the conclusion of each session, table hosts encourages the groups to join back up with the rest of the room to share their work with the broader group.

Successful group consensus was largely achieved across all groups, with no radical differences occurring. This indicated a strong, shared community view of the overall housing typology picture for Ryde. In addition, when Place Design Group commenced analysis after the workshops occurred, stronger consensus across sessions became evident, strengthening this picture further (please see consolidated map on page 26).

Exercise #3: Design Quality Deep Dive

The final exercise in the session sought to understand more detail about the broader elements of the overall design quality picture for housing across the LGA.

In their groups, guests were asked a series of questions by the table hosts and engaged in discussions around the following three questions:

1. What don't you like about the design quality in your local area?
2. What aspects of design quality do you think are important? (Is it character, light, privacy, height, overshadowing, etc?)
3. What's currently missing and what qualities do we need as we age and grow?

Participants took time to talk through their thoughts, priorities and ideas were captured and recorded on butchers paper (see pages 24 of this report for finer detail).

Groups then reformed into one larger session group to present thinking their thinking and prevailing key themes arose that reinforced each others thinking and created a solid picture for what the community knows and wants for their local neighbourhoods and broader council area.



KEY
Railway station
Railway line
Main road
Green space
Hospital
Major industrial area



PART 1

COMMUNITY VALUES

**Tell us what you value most about housing
in your local area**



Values

As first cab off the rank, participants were asked to give their top three (3) words to describe what they value about housing in Ryde.

The respondent's key issues related to both public and private open space, and the ideas around both the maintenance - and the creation - of good communities within Ryde. This idea was applied to a range of dwelling forms and settings from lower-density communities, to more intense residential areas to centres and mixed-use areas.

Another strong sentiment expressed by the group was around issues of visual appeal and design merit particularly of more recently constructed developments. This extended to ideas around development being sympathetic to the existing character of some areas, as well the lack of landscape and vegetation on site.

*Friendly,
connected and
no barriers
(gates, walls)*

*Safety,
accessibility
and quality*

*Quality of
construction*

*Location, access
to transport
and access to
community*

*Village concept,
building
quality and
open spaces*

Cleanliness

*Type,
environment
and age*

*Space, parks
and facility
surrounding
location (house
facing)*

*Low density,
clean streets
and dog
friendly
environment*

*Space, well-
built and
environment*

*Environment
(traffic), design
and modern*

*Maintain
natural
environment...*

*Aesthetic,
sustainable
and space
(around)*

*Building
expression*

*Space, internal
and external*

*The feeling
of space*

*Increase green
space (ie.
parks)*

*Safety, family
and shared
space*

*Upgrade/
replace older
houses, larger
houses and
sustainable*

*Preserve small
commercial
areas...*

*Space,
infrastructure
and green
environment*

Community

*Privacy, space
and light, and
environment*

*Cost, transport
and services*

*Preservation
of heritage*

Housing mix

*Water and
electricity*

Accessibility

Space

*Good facilities
(water, internet
and electricity)*

*Good
transportation*

*Park for
children*

*Convenient
location,
neighbourhood
and
environment*

*Longevity of
construction
and finish...*

*And accessibility
to public and
active transport*

*Greenery, quiet
area and quality
building (no dodgy
builders)*

*Blending with
street area, energy
efficient (water)...*

And single house

*Location,
housing (semi)
and modern
style street*

*Building
character*

*Mix of housing
and dwelling
type*

*Energy and
water*

*Space density
balance, cater for
different stage of
life cycle...*

*And not over
development*

*No architectural
merit, not user
friendly...*

*And visually
poor*

*Live in one-
bedroom house
at the moment,
regarding the
parking etc.*

*And don't move
industrial sites
to outer suburbs*

*Time-saver,
education and
experience*

*Garden,
welcoming and
appearance*

*Space, privacy
and quality*

*Keep character
of area (preserve
heritage
buildings)*

*Quality,
environmentally
friendly and
low-rise*

*Quality, single
dwelling and
neighbourhood*

PART 2

**EMERGING
ISSUES
AND IDEAS**

**Not just density, let's also talk
about the other important stuff
too, like design quality, local
characteristics and opportunities**



Key Stakeholder Session - Group 1

Attendees had much to say about their LGA and they were passionate about seeing good outcomes. Conversations ranged from issues of form, scale, density, character, sustainability, technology and energy use to more neighbourhood based issues about walkability, open space and access to community services. Many common themes and issues began to emerge as the groups explored a range of typological approaches to housing throughout the LGA. The groups explored the idea of what the “right house would be in the right location” might be. Attendees identified a range of insights and ideas to be explored through various planning scheme controls and other mechanisms that can be considered as part of this housing study. These insights will add value to other conclusions of the housing study and reinforce the community’s desire for good housing outcomes.



Here is what they said...

What don't you like about the design quality in your Local Area?

- High rise not in character with area
- Lack of tree cover and removal of green
- Visual impact of infrastructure
- Carpark on site
- Poorly maintained housing
- Co-located residential and transport
- Set-backs (too close)
- Privacy issue
- Acoustic privacy
- Buildings too 'boxy'
- Integration of nature and environment into building
 - Open space/vegifil?

What aspects of design quality do you think are important (ie. character, light, privacy, height, overshadow etc.)?

- Greenspace and tree cover
 - Open space
- Community space and bring people together
- Energy use and cost
- Preservation of heritage
- Security, safety and lighting
- Walking trails
- Playgrounds
- Streetscape
- Climatic response – natural ventilation and lighting
- Adaptable housing and disabled housing
- Recycling and refuse
- Community transport
- Overshadowing
- Green roofs and walls

What's currently missing and what qualities do we need as we age and grow?

- Mental health support
- Facilities for disabled youth
- Smart technology, Wi-fi, NBN and 5G
- Electric charging facilities for EV's (electric vehicles)
- Accessible community facilities
- More open space and sporting facilities
- Connecting young and old
- Underground services
- Bicycle facilities
- On demand PT (public transport)
- Better walkability
- Better local facilities and activities
- 'Activation day and night'
- Better engagement with the community
- Affordable housing

Key Stakeholder Session - Group 2



Here is what they said...

What don't you like about the design quality in your Local Area?

- Contrary to existing character
- Sterile, harsh design and no articulation
- Lack of natural elements
 - In structure ;
 - Lack of environmentally sensitive landscaping, and;
 - Lack of separation
- No consideration of privacy
- Noise
- Poor energy efficiency
- Poor ventilation

What aspects of design quality do you think are important (ie. character, light, privacy, height, overshadow etc.)?

- Sustainability
 - Aspect, light and overshadowing
- Character
- Separation
 - Allow room for trees;
 - Privacy, and;
 - Landscaping
- Vertical roof and gardens
- Street planting of trees
- Front setbacks (street) high density
- Access
 - Footpaths;
 - Disability access in streets, and;
 - Services and facilities

What's currently missing and what qualities do we need as we age and grow?

- Masterplanning (Putney)
- Connectivity
 - Within and out of Ryde, and;
 - Open space
- Mixed use development
 - Use ground floor for business
- Shade in public areas
 - Street trees , and;
 - Awnings, on high density, over footpath
- Transport

Key Stakeholder Session - Group 3



Here is what they said...

What don't you like about the design quality in your Local Area?

- Lack of coordination between development
- Old stock at the end of life (fibro)
- Old 3 story walk ups
 - Access;
 - Size of balcony;
 - Ground floor, and;
 - No open space
- New apartments and duplex
- Box like, poor facade treatment and too close to road
- Lack of landscaping and deep soil zone, species tree
- Sustainable Design
 - Encourage more than basic standards;
 - Public access to open space;
 - Cycleways, and;
 - Vertical roof gardens

What aspects of design quality do you think are important (ie. character, light, privacy, height, overshadow etc.)?

- Sustainable design
 - Solar;
 - Vertical and roof gardens, and;
 - Underground parking
- Use of colour in facade
- Texture and break up of facade

What's currently missing and what qualities do we need as we age and grow?

- Connectivity – res – transport
- Access to services
- Access across roads
- Masterplan self-contained developments
 - In appropriate location
- Passive recreation areas
- Ecological areas

Key Stakeholder Session - Group 4



Here is what they said...

What don't you like about the design quality in your Local Area?

- Maintenance of character
- Strengthen character
- The green
- The community feel
- Quality control (materials and buildings)
- Maintain local shops
- Walkability and cyclability

What aspects of design quality do you think are important (ie. character, light, privacy, height, overshadow etc.)?

- Access to transport
- Older housing
- Access to employment
- Topography – rivers and ridges
- Close to services (medical)
- Environment, greenery and open spaces
- Street trees
- Access and city
- Low scale low-rise area
- Local shops
- Green and middle
- Walkways and laneways

What's currently missing and what qualities do we need as we age and grow?

- Efficiency of design, don't oversize
- Outlook and aspect
- Natural ventilation
- Acoustic privacy
- Energy, solar panels and gardens (community)
- EV charging
- Underground power and service
- Space bin buildings
- Water recycling and harvesting
- Sustainable materials
- Buildings that are welcoming and legible

PART 3

BUILDING THE HOUSING STORY

**Putting the right house
in the right place**



Spatially mapping key stakeholder priorities

Spatially mapping community insights to practically apply the aspirational ideas and values to a map of the area so ideas are translated into practically demonstrated insights to better inform the strategy in a specific and test manner.



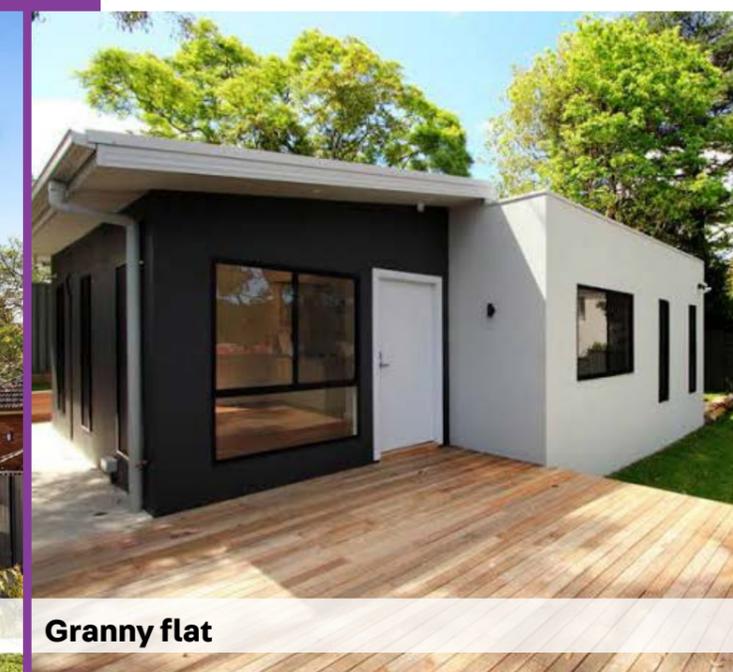
Character housing



Terraced house



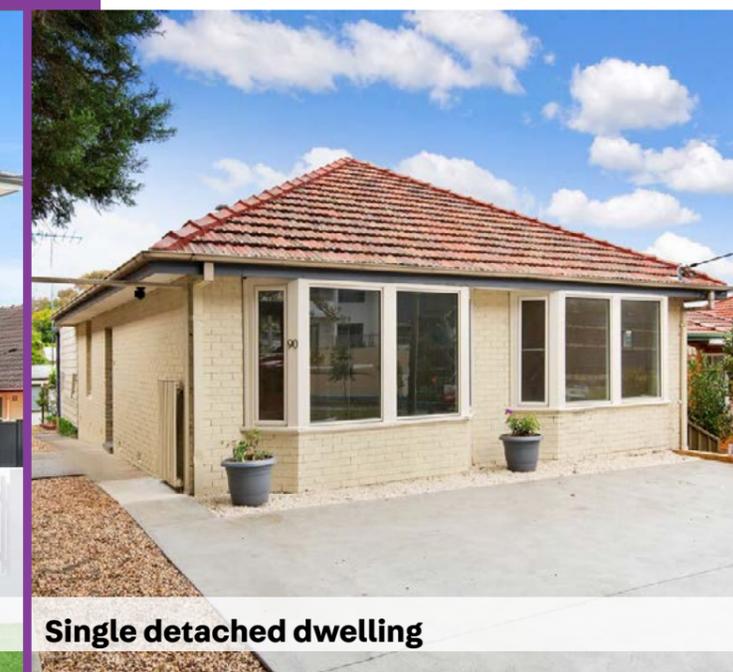
Duplex



Granny flat



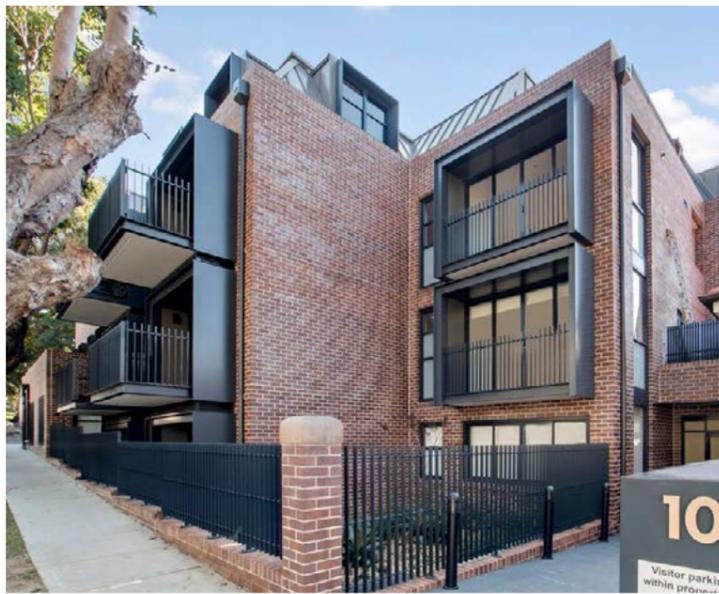
Townhouse



Single detached dwelling



Older single detached house



Low-rise apartments (urban)



Mid-rise apartment complex



Mixed use mid-rise



Modern single detached house



Modern low-rise apartments



Modern mid-high rise apartments



Aged care



Older low-rise apartments



Modern mid-rise apartments



Modern mixed use low-rise



Boarding house

Key themes

Community typology maps

From the great conversations we had with stakeholders, a fairly clear picture emerged about the nature, scale and form of housing that was preferred in the Ryde LGA.

It was clear that there was a preference that taller forms of development and greater housing diversity should be tied to transit options. This means that more intense housing forms should be clustered around stations and significant transit nodes including along major road transport corridors.

For the majority of the LGA the group was comfortable with additional housing opportunities in all areas for typologies such as Granny Flats, Aged Care and Terraced Housing forms of development. This allowed opportunities to downsize and 'age in neighbourhood'.

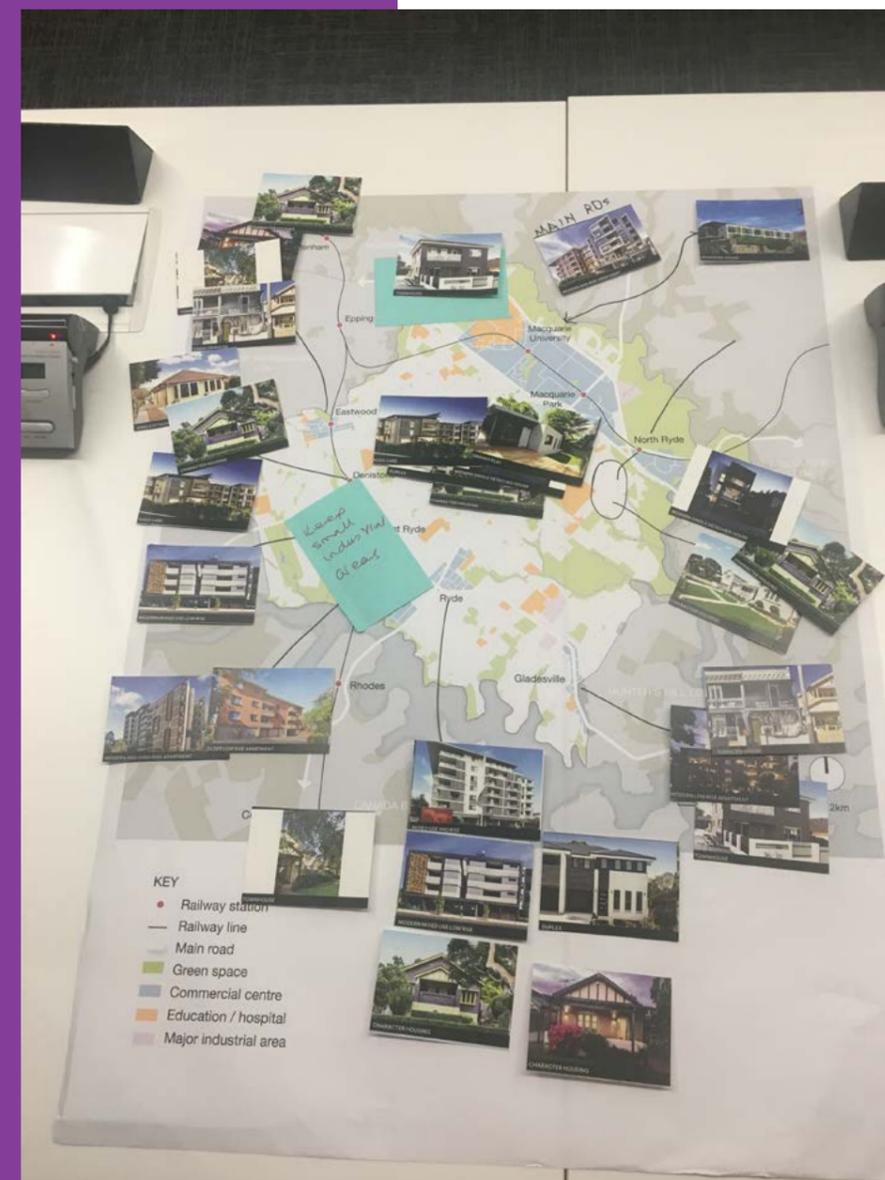
The groups felt that some transit nodes were more suited to different forms and intensity of housing diversity. There was a clear and strong preference shown by each group that lower scale forms of housing including low rise apartments (up to 5 storeys) would be located around transit nodes in more traditional character areas of Eastwood and Denistone. The group felt that as a general rule for all development around transit nodes that height and scale of development should decrease with distance from the station.

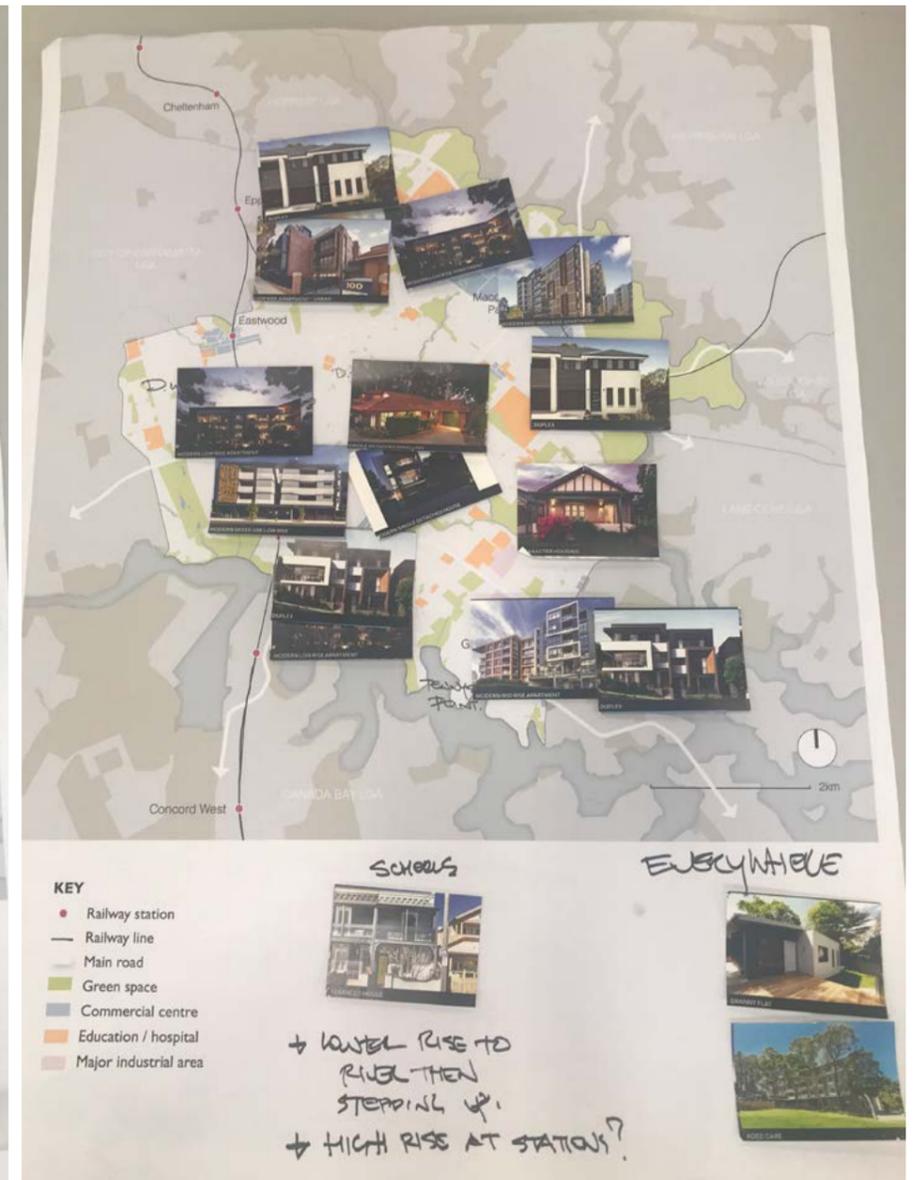
The areas considered to have the greatest opportunity for housing diversity with buildings up to 10 storeys was around Meadowbank and Macquarie Park and the university.

The only caveat to height in areas such as Meadowbrook was to ensure that taller buildings did not crowd the riverfront with shorter forms of development along the waterfront increasing in height with distance away from the river.

Another caveat, and an important one that emerged as part of discussions over character and form was the issue of topography. Many participants felt that one of the essential character traits of the LGA was its topography. The groups felt that regardless of the building form it should not be able to dominate the topography of the locality.

By way of summary of issues the following table categorises issues and ideas breaking the feedback into three basic areas.



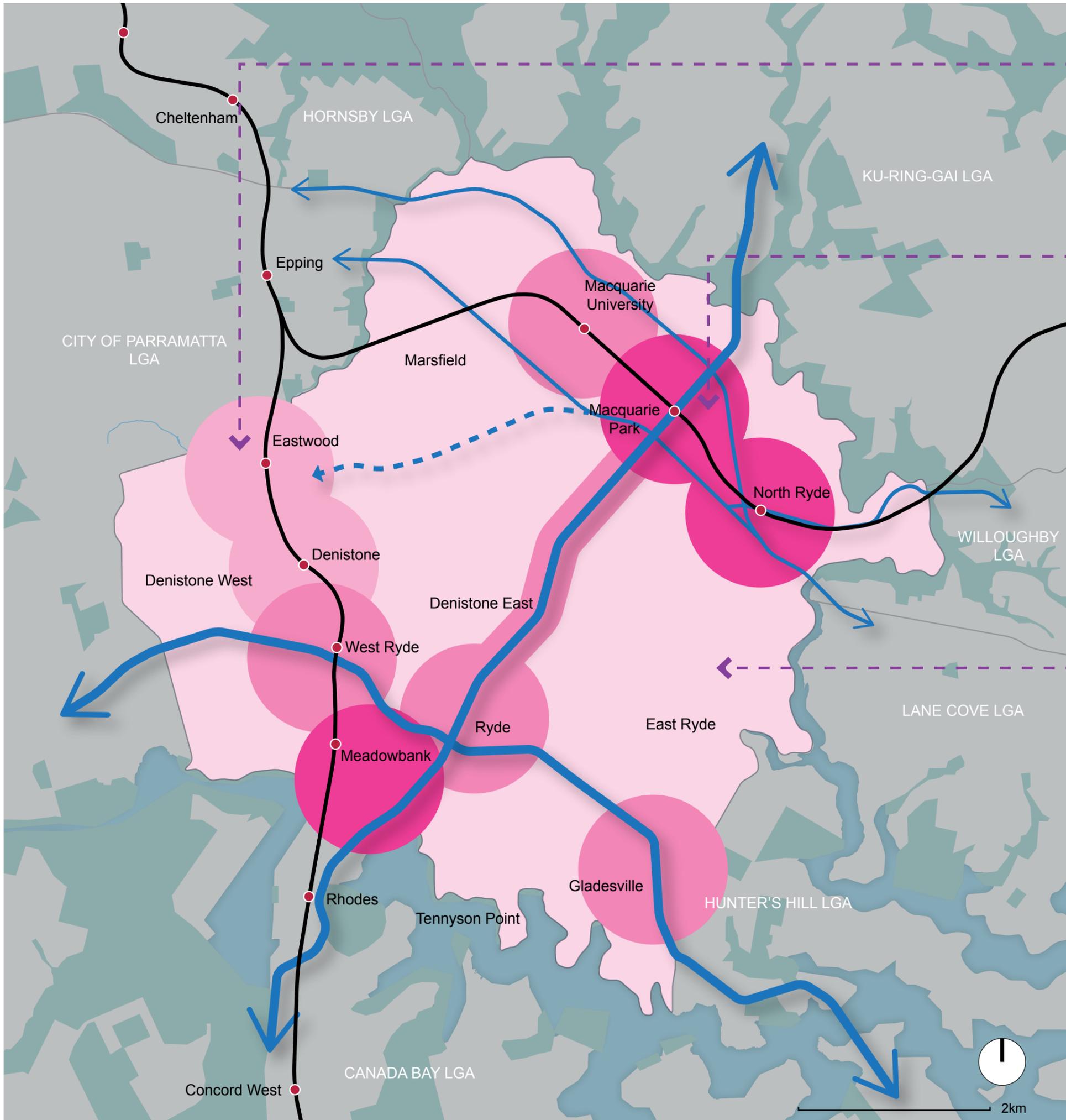


Consolidated typology map

Grouping spatial insights

The following table is the summary of the issues and ideas that were generated in the stakeholder sessions:

Housing Form	Housing Setting	Housing Sustainability
Setbacks to maintain private open space and visual privacy	Housing should be located adjoining transit nodes	Housing should be designed for universal accessibility
Sufficient private open space on site	Higher density urban forms should have appropriate levels of public open space around them	Smart buildings with good connectivity to internet and Wi-fi
Provision for deep planting on site	Housing should not dominate the topography	Energy and water efficiency
Less 'boxy' housing forms - development should be sympathetic to the character and materials of surrounding areas	Buildings should create appropriate streetscapes	Building design for natural ventilation and good solar access
Community spaces should be provided on site to enable social interaction	More intense built forms should be in walking distance to transport, retail and facilities	Buildings should be designed for appropriate climatic response
Buildings should address and overlook streets	Better master planning of larger infill and greenfield areas	Incorporate EV charging facilities
Buildings should avoid overshadowing	More footpaths and street trees to create walkable communities	Refuse and recycling facilities built into every building
Larger private open space areas		Incorporate bicycle facilities
		Incorporate rooftop gardens
		Incorporate water harvesting and recycling
		Use sustainable and recyclable building materials



Development focused around transit nodes and road corridors

Most intense housing at Meadowbank and Macquarie Park

Opportunities in these areas are aged care, granny flats and terrace houses

Consultation Summary Plan

Legend

- Railway station

- Railway line

- Major road connection

- Green spaces

- Water

- Single-detached/character dwellings (1-2-storeys)

- Low-rise residential buildings (up to 5 storeys)

- Low-medium residential buildings (6-8 storeys)

- Mid-rise buildings (8-10 storeys)

Where to from here?

The findings from this community and stakeholder engagement program will help shape Council's ongoing LEP Review projects, including the finalisation of the draft LSPS.



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