GLEN EIRA HOUSING AND LOCAL ECONOMY GROWTH ASSESSMENT

FINAL
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Prepared for
City of Glen Eira

Independent insight.

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EXECUTIVE SUMMARY

Introduction

The Activity Centre, Housing and Local Economy Strategy (ACHLE Strategy) developed by Council establishes a hierarchy of activity centres and provides policy direction on where growth will be focussed.

Building on existing analysis, SGS was commissioned by the City of Glen Eira to understand, at a more detailed level, how growth forecasts align with this strategy, and to ultimately support implementation via the Amendment process. This report does not include policy recommendations, advice on the feasibility of development or a review of the design guidelines that underpin the ACHLE.

Background Context

Population growth forecasts for Glen Eira are relatively modest, with much of the growth anticipated to be concentrated in activity centres in line with proposed higher density areas. Future development, particularly large-scale housing projects, will continue in these centres. This is supported by the recent growth in demand for medium and high density housing. Increased medium-high density development at centres aligns with the ACHLE's objective of providing housing for all (especially increasing numbers of young families), and provides increased housing diversity to the currently dominant single dwelling, separate home typology that is prevalent across the municipality.

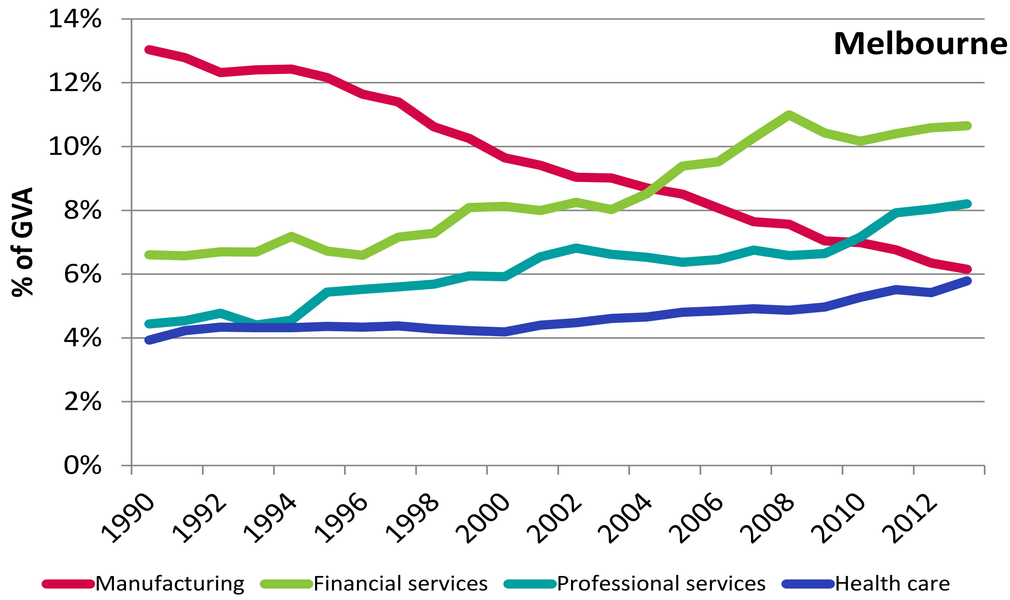
TABLE 1: GROWTH BY DWELLING TYPES

Dwelling Type	Bedrooms	2006	2011	2016	Change 2006-2016	Absolute Growth
Separate House	0-2	5,237	4,636	3,560	-1,677	-32.0%
Separate House	3	14,483	13,932	12,293	-2,190	-15.1%
Separate House	4+	8,092	9,448	10,313	2,221	27.5%
Medium and High Density	0-1	3,949	4,293	4,665	716	18.1%
Medium and High Density	2	9,517	10,396	11,993	2,476	26.0%
Medium and High Density	3+	5,389	6,474	8,493	3,104	57.6%
Other Dwelling	Other	281	245	225	-56	-19.9%

Source: ABS Census 2016

The Victorian economy is changing, influenced by global trends. Over the past few decades technology has transformed it from one based on manufacturing and agriculture to one based on high skill, knowledge intense industries and services (see Figure 1).

FIGURE 1: SHARE OF MELBOURNE'S GDP



Source: SGS Economics and Planning

Glen Eira is home to a highly skilled workforce, and the largest employment sector for Glen Eira residents is professional, scientific and technical services. There are currently limited opportunities for these knowledge intensive jobs in Glen Eira although there is excellent access to these jobs in the neighbouring municipalities and the CBD.

Glen Eira is a well-connected, highly skilled and employed municipality. Analysis of where employees live revealed that a relatively high proportion of local jobs are held by local residents. However, the proportion of residents of Glen Eira who work in the municipality is one of the lowest in Victoria. These two trends suggests there would be strong demand for additional local jobs. In particular, there would be demand for office based jobs which is currently the largest employment sector.

Recent VCAT decisions and a review of existing planning controls indicate that there is a need for greater policy direction, particularly for Activity Centres where higher density housing is to be concentrated.

Policy Context

The City of Glen Eira has undertaken extensive strategic planning which are integrated with the ACHLE Strategy. The Quality Design Guidelines for residential as well as commercial and mixed use areas identify a series of building typologies that are referred to in the ACHLE Strategy. Bentleigh, Carnegie and Elsternwick have recently been structure planned, using the same building typologies.

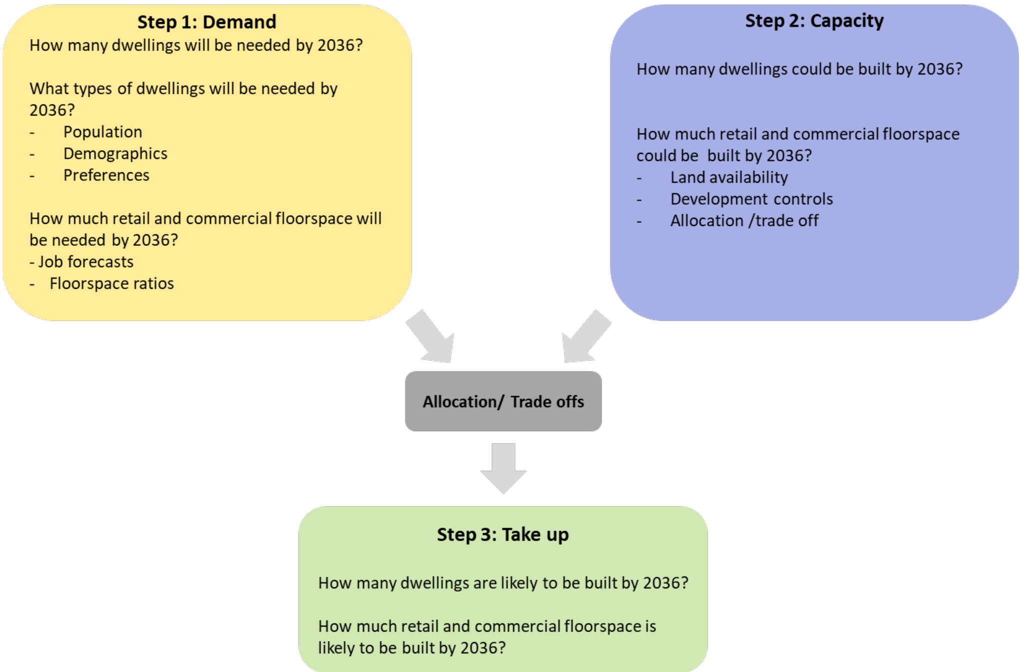
Structure planning for East Village and Caulfield Station is also currently being undertaken, led by the Victorian Planning Authority (VPA).

The ACHLE is intended to provide stronger guidance to development in these areas. Over the last 3 years, challenges to Council's existing policy at VCAT have highlighted that activity centres are expected to absorb significant growth, yet the current framework does not specify preferred building forms or preferred building heights. The structure planning of Bentleigh, Carnegie and Elsternwick based on the ACHLE framework addresses these challenges. Subsequent structure planning of other activity centres based on the ACHLE framework will cement this guidance.

Approach to assessing Glen Eira's capacity to absorb future growth

Existing planning controls and the draft structure plans provide guidance on the type of development that can occur in Glen Eira. Assessing whether existing planning controls and the structure plans, (and by extension, the ACHLE), adequately cater to future development requires an understanding of how much growth is anticipated, and, where it is anticipated to occur.

The likely future distribution for additional dwellings and employment floorspace was identified using a detailed and transparent approach which can be broadly summarised in three stages: *Demand, Capacity and Take Up*. The steps taken in this approach are summarised in the diagram below.



This approach considers demand, supply and likely future take up within the context of the current policies. It provides a means to assess the distribution of future growth in light of the proposed *Activity Centre, Housing and Local Economy Strategy* for Glen Eira. Capacity is an estimate of the quantum of housing and employment floorspace that could be accommodated in an area. It is based on existing planning controls and recent housing supply trends. Take up or 'Realised supply' is an estimate of the capacity that could be taken up by demand in a particular time period.

This approach requires an assessment of how much land is potential available for future development. This assessment found that after removing land subject to constraints, approximately 42% of land in developed areas are potentially available for future housing, commercial and or retail development.

Residential Assessment

Across the City of Glen Eira, .id forecasts project demand for **16,017 additional dwellings** by 2036. At 2016, the net dwelling capacity (additional number of dwellings theoretically possible under existing planning controls) for City of Glen Eira was identified as **44,993 dwellings**, comprising capacity for an additional 9,568 single detached dwellings, 13,096 townhouses/villas and 22,108 apartments.

There is higher take up of new housing within activity centres than in the remainder areas- the percentage take up of net capacity is likely to be lower in established suburban areas outside of activity centres. Across all activity centres and remainder areas, there is ample dwelling capacity to comfortably meet forecast dwelling demand.

Commercial Assessment

Using SGS SAM forecasts, there is forecast demand for an **additional 259,400 square metres of commercial floorspace** by 2036 in the City of Glen Eira.

55 per cent of net commercial floorspace capacity (the amount of additional commercial floorspace theoretically possible under existing planning controls) is projected to be taken up by 2036.

However the distribution of existing demand and future demand for commercial floorspace is very uneven. A significant amount of demand for commercial floorspace is located in residential areas outside of activity centres. This suggests that there is significant commercial floorspace occurring on land not zoned for commercial uses for example home offices. Structure planning of activity centres will work to attract this additional floorspace demand.

Retail Assessment

SGS forecast demand for retail floorspace forecasts across Glen Eira were prepared using the SGS Retail Expenditure Model. This applied the Blair Warman Economics (BWEC) Glen Eira Economic Analysis and Forecasting Study from 2016 as a benchmark for the existing demand for retail floorspace.

The forecast identified demand for an **additional 128,300 sqm of retail floorspace** by 2036 across the LGA. This equate to approximately 38 per cent of net retail floorspace capacity (the amount of additional retail floorspace theoretically possible under existing planning controls) across Glen Eira.

Major retail growth is anticipated in Bentleigh, Carnegie, Elsternwick Major Activity Centres and East Village. These centres all have ample capacity to absorb future retail growth. Across Glen Eira, none of the activity centres are projected to have retail demand exceed their capacity.

Caulfield Station precinct currently lacks the capacity to absorb anticipated demand for retail floorspace. This will be an important consideration in structure planning this precinct.

Concluding Remarks

The ACHLE provides clear guidance for the development of vibrant mixed use activity centres while protecting the neighbourhood character of established residential areas. The modest projections for residential growth mean there is ample residential housing capacity to absorb future growth across a range of different housing types.

Retail growth is expected to be concentrated in Bentleigh, Carnegie, Elsternwick Activity Centres and East Village. With the exception of East Village, which is in the process of being structure planned by the VPA, these activity centres have recently been structure planned in line with the framework in ACHLES and all have ample capacity to absorb future retail growth.

The current distribution of commercial floorspace indicates that there are a particularly high number of businesses operating out of homes across Glen Eira. Council could investigate opportunities for encouraging new floorspace to locate within activity centres, rather than in residential zones. Structure planning of additional activity centres can work to attract this additional floorspace demand. This will support the development of attractive and vibrant activity centres across Glen Eira, in line with the framework outlined in the ACHLES.

1. INTRODUCTION

Activity Centre, Housing and Local Economy Strategy provides guidance for housing and economic growth. This report assesses the nature of growth in Glen Eira, and, the extent to which planning policy is supporting this growth.

1.1 Project context

As with many parts of Melbourne, Glen Eira has experienced population and housing growth in recent years. In response to this growth, Glen Eira Council has undertaken extensive work to provide greater direction for new housing and economic growth in the municipality. This has included the preparation of 'The Activity Centre, Housing and Local Economy Strategy 2017' (ACHLES), currently in draft form.

Building on existing analysis, SGS was commissioned by the City of Glen Eira to understand, at a more detailed level, the amount of housing and employment demand that is forecast for Glen Eira, and the extent to which the ACHLES and existing planning controls provide a suitable framework for meeting this demand. This review also assessed whether there were any gaps in the ACHLES that need to be addressed. This assessment was conducted to provide an evidence base to ultimately support the implementation of ACHLES via the Amendment process.

Activity Centre, Housing, and Local Economy Strategy July 2017

The Activity Centre, Housing and Local Economy Strategy 2017 (ACHLES) has been prepared to provide a long term strategic framework to guide the development and delivery of activity centres, housing and local economy for across Glen Eira. This strategy seeks to ensure the communities needs are met, while ensuring that amenity and local character is maintained and respected.

The development of ACHLES has emerged in response to recent significant population growth in the municipality and it is forecast that this growth will continue but steady into the future. Over the next 15 years, the strategy seeks to accommodate the projected growth in population of 22,000 residents, 9,000 dwellings and 9,500 jobs. This transition is viewed by council as an opportunity to set a new direction for the municipality. As growth is to be concentrated in activity centres in line with State policy, the strategy seeks to set a clear vision for activity centres as well as housing and the local economy across Glen Eira.

As a municipality with a relatively high number of activity centres, Council acknowledges the significance of planning for growth in these areas, both in terms of their commercial cores and their surrounding residential areas. Activity centres are identified as key places for people to shop, work, meet, relax and live. Therefore, the strategy takes a holistic approach to planning for activity centres. Population and economic growth will additionally be supported at various scales across the municipality, therefore, the ACHLES establishes a long-term municipality-wide strategic direction for housing and local economy.

The strategy articulates the need to match local housing growth with local economic growth in order to build strong communities. As such, the document covers four areas; an activity centre framework, place-making framework, local economy framework and housing framework. The strategy sets themes, objectives and outcomes of place-making, local economy and housing.

The ACHLE Strategy was developed to provide:

- a strategic context for an update to Glen Eira's Municipal Strategic Statement,
- a planning policy link between the objectives of the Glen Eira *Council and Community Plan* and *Plan Melbourne*,
- a strategic context guide for upcoming precinct structure plans,
- a clear policy direction for centres without adopted structure plans,
- a community owned plan to achieving future State Government housing and job targets
- a high level place-based direction for upcoming strategies such as the:
    - *Integrated Transport Strategy*
    - *Revised Open Space Strategy*
    - *Municipal Public Health and Wellbeing Plan*

1.2 Report Summary

Chapter 2 reviews the background context for the ACHLES. It looks at population and housing trends as well as the employment profile for Glen Eira. This provides a baseline for understanding the type of growth that has been happening in Glen Eira to date, and the likely nature of future change.

Chapter 3 provides an overarching policy context for evaluating the ACHLES. It includes a detailed discussion of the ACHLE itself, and an assessment of the associated Quality Design Guidelines for Residential and Commercial and Mixed Use Areas. It also includes a description of the Carnegie, Bentleigh and Elsternwick Structure Plans. Other relevant council strategies are also reviewed.

Chapter 4 outlines the overall method used for assessing the ACHLES, and describes the datasets that are drawn on. It presents the results of the available land assessment, which identifies land suited to redevelopment for commercial, retail or residential purposes and and outlines the assumptions that are used in the assessment.

The report is structured around defined activity centre assessment areas, (the area that is likely to be structure planned in the future, or, has already been structure planned for an Activity Centre) and remainder areas. Remainder areas are suburb areas that occur outside of activity centre assessment areas. The focus on Activity Centres reflects the primacy of Activity Centres in the framework outlined in the ACHLES.

Chapter 5 presents the findings of the residential assessment. This section describes the demand for new housing and where it is likely to occur. It assesses whether there is enough capacity for new development to support the demand and identifies whether there are any implications for ACHLES.

Chapter 6 presents the findings of the commercial analysis. This section describes the demand for additional commercial floorspace,and where it is likely to occur. It assesses whether there is enough capacity for new development to support the demand, and identifies whether there are any implications for ACHLES

Chapter 7 presents the findings of the retail analysis. This section describes the demand for additional retail floorspace and where it is likely to occur. It assesses whether there is enough capacity for new development to support the demand, and identifies whether there are any implications for ACHLES

Chapter 8 provides some concluding remarks. These identify the key findings from the residential, commercial and retail assessments that have implications for the ACHLES.

1.3 Study Area

Glen Eira is located in the inner east of Melbourne, as shown in Figure 2

FIGURE 2: LOCATION OF GLEN EIRA

Source: SGS Economics and Planning

2. BACKGROUND CONTEXT

This section summarises recent trends and forecasts for employment and housing in Glen Eira. It also reviews existing planning controls and recent VCAT decisions to identify areas where Council is most frequently challenged. This provides the background context and justification for the ACHLES.
Further background information is detailed in Appendix B and C.

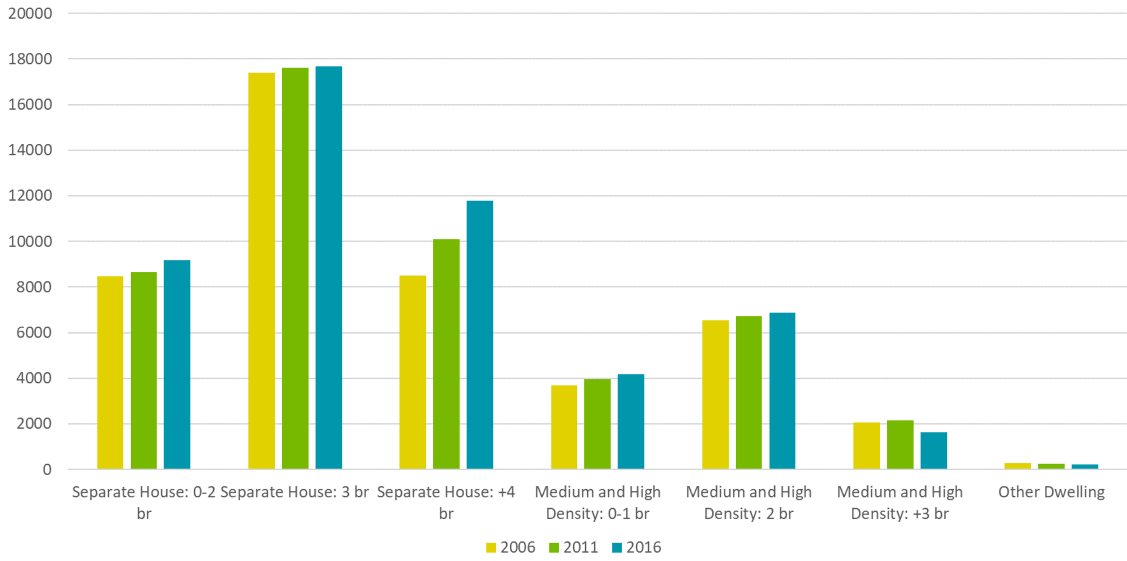
2.1 Recent housing trends

Housing growth has been unevenly distributed across Glen Eira, at varying densities and scales. New developments have largely concentrated in Bentleigh East, Caulfield North and Bentleigh (see Appendix B). Growth in Elsternwick, Carnegie and Caulfield North was primarily high density developments (200 plus dwellings per hectare), whereas Bentleigh, Bentleigh East and Caulfield North saw lower densities (1-25 dwellings per hectare).

Larger scale developments have concentrated in major activity centres, with large scale housing projects (20 dwellings or more) occurring in Caulfield North, Carnegie and Elsternwick. Further, although recent apartment prices could not be obtained[1], data reveals (see Appendix C) median housing prices between 2007 and 2017 have experienced significant growth in all localities, most substantially in Bentleigh East, Murrumbeena, and McKinnon.

Over several decades Glen Eira has transformed from post-war 'quarter-acre block' suburbs to a residential area that hosts a variety of housing types. The most common type of housing stock in Glen Eira is a 3 bedroom separate house (see Figure 1).

FIGURE 3: DWELLING STOCK GLEN EIRA 2006-2016



Source: ABS Census

While separate houses are widely prevalent, accounting for half of the housing stock, multi-dwelling properties and high-density developments around local hubs are gaining momentum, particularly around transport nodes and activity centres creating a varying

[1] At the time of analysis, median apartment prices were unavailable. These have been requested from the Valuer Generals Office.

distribution of housing types. Over the last decade the total number of dwellings in Glen Eira has increased by 10%, with a decline in 'separate house' stock (-5.9%) and steadily growing medium-high density housing stock (+33.4%) (see table 2).

TABLE 2: GROWTH BY DWELLING TYPES

Dwelling Type	Bedrooms	2006	2011	2016	Change 2006-2016	Absolute Growth
Separate House	0-2	5,237	4,636	3,560	-1,677	-32.0%
Separate House	3	14,483	13,932	12,293	-2,190	-15.1%
Separate House	4+	8,092	9,448	10,313	2,221	27.5%
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Other Dwelling	Other	281	245	225	-56	-19.9%

Source: ABS Census 2016

Between 2006 and 2016 separate houses with 0-2 and 3 bedrooms were the only type of dwellings to witness a decline in stock, while simultaneously separate houses with +4 bedrooms experienced consistent growth. Since the number of separate dwellings remained relatively constant since 2006 the changing proportions within the 'separate house' population is likely a result of a trend of house extensions and redevelopment of old houses- ("knock down replace").

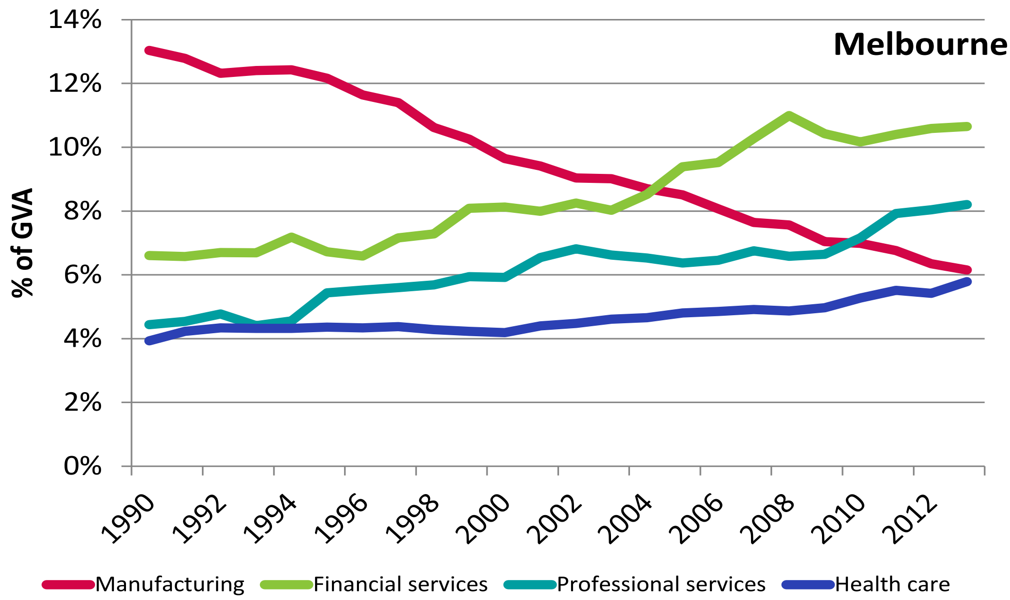
Medium and high density housing that is 2 and 3 plus bedrooms has experienced significant growth between 2006 and 2016. The high levels of growth in medium and high density housing indicate a trend towards housing intensification, while simultaneously, large single dwellings with 4 or more bedrooms are also growing. Providing support for medium and higher density housing in suitable locations while retaining the character if established surburban areas will ensure a diversity of housing stock into the future.

2.2 Recent employment trends

Economic trends in Melbourne and Victoria

The Victorian economy is changing, influenced by global trends. Over the past few decades technology has transformed it from one based on manufacturing and agriculture to one based on high skill, knowledge intense industries and services (see Figure 4).

FIGURE 4: SHARE OF MELBOURNE'S GDP



Source: SGS Economics and Planning

Manufacturers will not disappear completely, but those that remain will be highly innovative to prosper and this will demand, directly or indirectly, significant involvement of professional services and highly skilled labour.

In a similar vein, population-serving sectors such as retail, health and hospitality will require access to analytical and creative services if they are to boost productivity and present a competitive advantage compared to alternative channels. This is reflected in a trend of hyper specialisation in the health sector and a focus on 'experience' in retail.

These sectors make up the new 'knowledge economy', and this economic structure has quite different spatial implications, needs and drivers compared to traditional industrial or population-serving employment. In particular, knowledge-intensive activities require access to deep and diverse skills and client bases to enable them to specialise and build resilience. They therefore gain strong benefits from highly connected locations, or agglomerations. Furthermore, they need to attract and retain highly skilled/specialised labour and interact with a diverse range of other businesses. As a result, they are attracted to diverse, high quality and high amenity environments.

Due to these economic changes, employment growth in broader Melbourne has increasingly been clustering around the inner city and major economic nodes. Previous major renewal areas, such as Southbank and Docklands, along with supporting infrastructure investments, have enabled Melbourne to continue to grow its inner-city economy. Areas with good access to this economy (such as Glen Eira) continue to be attractive places for the highly skilled workforce to reside.

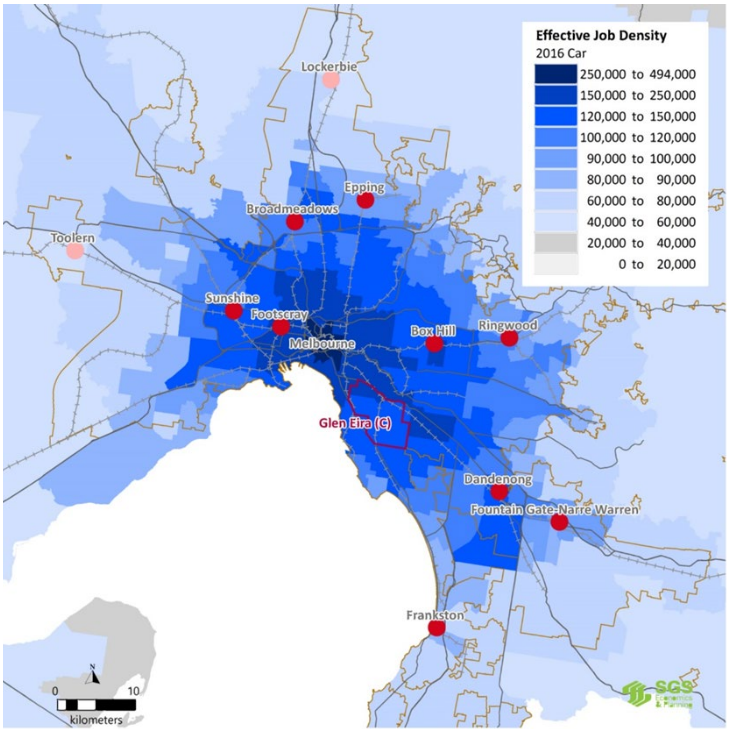
Economic trends in Glen Eira

The Victorian economy has shifted towards high skill, knowledge intense industries and services, resulting in growing employment clusters around the inner city and major economic nodes. Areas with good access to this economy, which is concentrated in the CBD and inner south eastern suburbs continue to be attractive places for the highly skilled workforce to reside. Glen Eira has an excellent access to this concentrated node of economic activity as illustrated in Figure 5.

Forty percent of people employed in Glen Eira are residents of the municipality similar to the proportion found in Bayside, and higher than the proportion found in Kingston and Bayside (see Table 14 and Table 15 in Appendix C). This indicates that if the supply of local jobs increased, these are likely to be taken up by the Glen Eira community.

The largest employment sector of professional, scientific and technical services has limited opportunities locally (refer to Table 21 in Appendix D). Glen Eira's inner city location has good access to employment opportunities outside the LGA, as well as the skill profile of residents, which match those jobs on offer. There are 36,846 jobs found locally, however the working population is 66,690, and there is scope to increase the local job offering, particularly in commercial sectors such as professional, scientific and technical services.

FIGURE 5: EFFECTIVE JOB DENSITY



Source: SGS Planning and Economics 2018

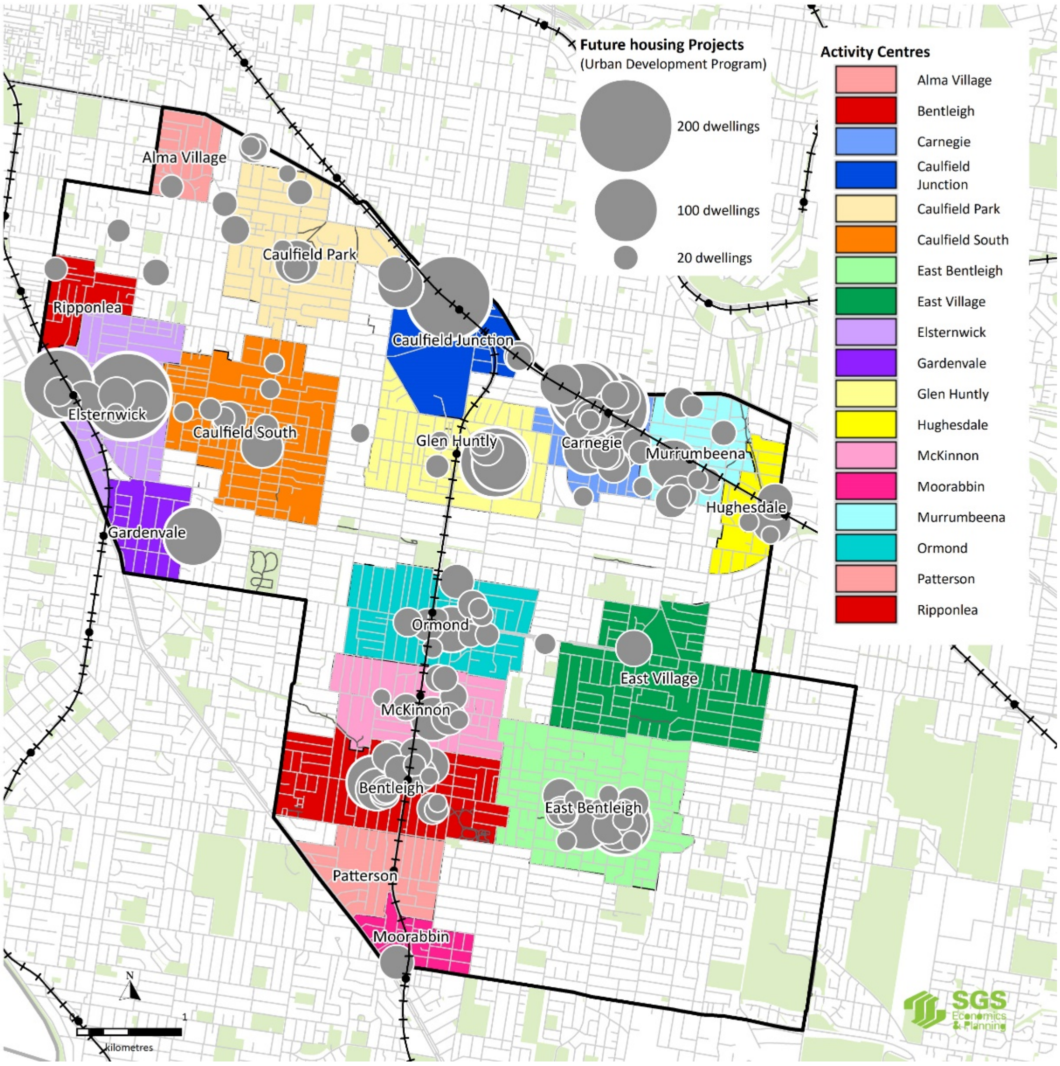
Observing and analysing real behaviour patterns reveals 'natural' sub-regions within our economy. Glen Eira sits within the inner Melbourne region, a reasonably self-contained region containing Melbourne CBD (See Figure 17 in Appendix C). While the number of Glen Eira residents who work in the City of Melbourne are high at 26 per cent, the portion of residents employed locally (within Glen Eira) are at 22 per cent (Appendix C). Ie. almost 80 per cent of the working population leaves the local area for work. Compared to other municipalities, Glen Eira has one of the lowest proportions of residents employed locally across all Victorian LGAs. (See Appendix C for neighbouring LGAs.)

Over 48 per cent of residents work in Glen Eira or the City of Melbourne. In accessing work, Glen Eira residents are almost three times more likely to drive to work than to take public transport, with active travel the lower mode at 2 per cent (see Table 17 in Appendix C), despite very good public transport access. Encouraging growth in local jobs, and growth in housing that is close to public transport will foster greater use of public transport.

2.3 Projected population growth

The population of Glen Eira is expected to grow by more than 30,000 people to 2036 (see Appendix C). The highest population growth is expected to occur in Caulfield North, Carnegie and Elsternwick. As shown in Figure 3, future housing projects (greater than 10 dwellings) will largely concentrate in Carnegie, Bentleigh and East Bentleigh. There are some isolated large housing projects (greater than 200 dwellings) occurring in Elsternwick and Caulfield Junction. Limited data is currently available for the East Village site.

FIGURE 6: URBAN DEVELOPMENT PROGRAM – FUTURE HOUSING PROJECTS



Source: SGS Economics and planning, data from Urban Development Program

Housing change forecasts estimate an overall slight decline in average household sizes across localities in Glen Eira from an average household size of 2.53 to 2.43. (see Table 19 in Appendix C). The largest declines will occur in St Kilda East and McKinnon. The number of dwellings are forecast to increase across Glen Eira by 16,017 dwellings by 2036. The largest increases in dwelling numbers estimated are in Caulfield North-Caulfield East, Carnegie and Bentleigh (see Table 32 in Appendix C).

New residents will require not only housing but also access to population serving businesses, such as retail centres and small businesses.

2.4 VCAT decisions

A review of eight VCAT cases between 2015 and 2018 has been undertaken to explore how Council's existing policy is being interpreted and challenged. The aim of this review is also to highlight key issues within the existing policy, and particular locations where issues are arising.

The eight cases examined were identified by Council's VCAT coordinator as being examples where the existing policy has been tested in recent years.

The details of the cases and the VCAT decisions are described in Appendix B.

Consistent themes emerged through the analysis of the VCAT decisions that provide some clear guidance to Council in terms of its overall policy for housing in the municipality.

Findings

The key messages from the VCAT cases study to be considered when updating the policy framework are:

- There is support for the hierarchy approach.
- There is an expectation that higher density areas, neighbourhood activity centres and urban villages absorb a significant amount of density to compensate for the amount of land designated as minimal change.
- Built form controls must be based on examination of each individual area or centre, not nominated based solely on level in the housing hierarchy.
- Built form controls need to be based on an assessment of the character and context of the area.
- The current policy framework does not specify preferred building forms (e.g. apartment, town house). It specifies a diversity of dwellings.
- Apartment buildings are an acceptable form of housing in housing diversity areas.
- Uniform heights in activity centres were not favoured by VCAT.
- There is little local policy that guides preferred heights in Urban Villages, Neighbourhood Activity Centres and Housing Diversity Areas.

2.5 Planning scheme controls

Local Planning Policy Framework

Clause 21.04 contains Council's current policy on Housing and Residential Development (noting this does not reflect the most recent work that has been undertaken by Council as outlined in chapter 3). It establishes a hierarchy of housing diversity areas with a different density, mass and scale of development sought for each type of area. The hierarchy. With the level of development decreasing from the top to the bottom of the table is:

Level of development	Centre types	Specific areas
Highest level of development	Urban Villages (Bentleigh, Carnegie, Elsternwick)	Phoenix Precinct
	Neighbourhood Centres – Commercial	
	Local Centres	Tram routes and selected main corridors
Lower level of development	Neighbourhood Centres - Residential	

Separate to these housing diversity areas are the residential areas which site outside these areas.

Specific zoning has been selected for each of the housing diversity areas and residential areas. A suite of local policies guide development in each of the housing diversity areas and the minimal change areas.

Policy	Applies to	Includes
22.05 Urban Villages	▪ Bentleigh Activity Centre ▪ Carnegie Activity Centre ▪ Elsternwick Activity Centre	Objectives relating to: ▪ commercial role and housing role ▪ Encourage increased densities ▪ Managing interface and transitioning to adjoining residential ▪ Appropriate development considering infrastructure and traffic Specific policies for each centre including: ▪ an existing character description overall and for sub precincts ▪ height guidance ▪ identification of redevelopment sites Guidance on sites covered by overlays (i.e. HO, SBO).
22.06 Phoenix Precinct	Phoenix Precinct which includes: ▪ Caulfield Station ▪ Caulfield Plaza ▪ Monash University ▪ East Caulfield Reserve ▪ Caulfield Racecourse	Objectives to guide the development of each area. Urban design guidance for each of the seven areas within the precinct. Design techniques for specific sites.
22.07 Housing Diversity Area	All land zoned for the following not covered in Clause 22.05 or Clause 22.06: ▪ General Residential Zone ▪ Residential Growth Zone ▪ Commercial 1 Zone ▪ Comprehensive Development Zone ▪ Mixed Use Zone.	Objectives and policy relating to: ▪ Diversity of dwelling types, layouts and sizes. ▪ Density, mass and scale of residential development is appropriate. ▪ Take advantage of key development sites. ▪ Managing interfaces with existing residential. Policy provided for different typologies: ▪ Neighbourhood centres (commercial areas and residential areas) ▪ Tram routes and selected main routes. ▪ Local centres Guidance on sites covered by overlays (i.e. HO, SBO). *Note, no Neighbourhood Character Statements*
22.08 Minimal Change Area	All land zoned Neighbourhood Residential Zone	Neighbourhood Character Statements for each minimal change area. Objectives and policy relating to: ▪ respecting preferred character (generally existing), ▪ limiting development to two dwellings per lot, ▪ maintaining vegetation and site layout. Guidance on sites covered by overlays (i.e HO, SBO, NCO, DDO).

2.6 Implications for the ACHLE

Population growth forecasts for Glen Eira are relatively modest, with much of this increase set to concentrate in activity centres in line with proposed higher density areas. Future development, particularly large-scale housing projects, will increase in these centres. This is supported by the recent growth in demand for medium and high density housing. Increased medium-high density development at centres aligns with the ACHLE's objective of providing housing for all, especially rising groups of young families and provides increased housing diversity to the currently dominant single dwelling, separate home typology seen across the municipality.

Local employment trends reveal Glen Eira is a well-connected, highly skilled and employed municipality. Analysis of where employees live revealed that a relatively high proportion of local jobs are held by local residents. However, the proportion of residents of Glen Eira who work in the municipality is one of the lowest in Victoria. These two trends suggests there would be strong demand for additional local jobs. In particular, there would be demand for office based jobs which is currently the largest employment sector.

Recent VCAT decisions and a review of existing planning controls indicate that there is a need for greater policy direction, particularly for Activity Centres where higher density housing is to be concentrated.

3. POLICY CONTEXT

Glen Eira has undertaken extensive policy work over the last 2 years to provide greater direction on housing development and growing the local economy. Multiple strategies have been developed simultaneously. This section provides an overview of the ACHLES and recently developed key policies and plans that are relevant.

3.1 Overview of ACHLES

The ACHLES was developed and informed by consultation with the community and expert advisors, and trends across Melbourne. Community input was obtained through feedback received on a draft version of the document, the Planning Scheme Review 2016, 'Tell us what you love about your shopping strip' Survey, 'Transforming our neighbourhoods' Survey and the 'Glen Eira Council and Community Plan' consultation.

Expert economics and housing analysis included two background papers that were produced by consultants to inform the development of this strategy including the *Glen Eira Draft Economic Analysis 2017* and *Glen Eira Draft Housing Opportunity Analysis 2017*.

Plan Melbourne provides an overarching strategic planning framework for the state. It indicated Melbourne's growth should be concentrated in well-connected and well-serviced activity centres, this has informed the development of the ACHLE Strategy.

Key themes and priorities of the Glen Eira Council and Community Plan have been informed and been incorporated into the ACHLE strategy, in particular, Theme 1: Liveable and well designed. Objectives of this theme that guided the production of the ACHLE include:

1.1 Create prosperous, accessible and vibrant urban places.
1.2 Encourage development that benefits the community.
1.3 Proactively plan for and manage change within our urban places.
1.4 Invest sustainably in our infrastructure and community assets.

Activity Centre Framework and document vision

The strategy framework intends to guide future development of a network of activity centres to meet a vision of Glen Eira as a city of walkable neighbourhoods that are centred on a network of vibrant, socially inclusive and well-designed activity centres, that provide for the needs of and reflect the character of their communities. The hierarchy of activity centres operate on a scale from more employment focused to more housing focused and are identified in Table 1.

Table 3: Activity Centre Hierarchy

Activity Centre Hierarchy	Location
Health, education, and innovation precinct with urban renewal	Caulfield Station Precinct
Emerging health, education and innovation precinct	East Village
Major activity centre with urban renewal	Carnegie, Elsternwick
Emerging major activity centre with urban renewal	Moorabbin Junction
Major activity centre	Bentleigh
Emerging major activity centre	Glen Huntly
Large neighbourhood centre	Bentleigh East, Caulfield South
Neighbourhood centre	Caulfield Park, Alma Village, Hughesdale, McKinnon, Murrumbeena, Ormond, Patterson, Ripponlea, Gardenvale
Emerging neighbourhood centre	Oakleigh South
Local centres	Mapped in the draft ACHLE but not specifically identified under local policy.

Key Themes in ACHLE

Place Making

This theme aims to create well connected and distinctive neighbourhoods. Council acknowledges the unique nature of each activity centre and articulates the need to strengthen their distinct place identity. The need to increase access to activity centres are highlighted, mostly in terms of walkability and cycle-ability. Each of the 18 activity centres are assigned vision statements developed from community consultation feedback.

Theme one objectives include:

- Culturally rich communities: This considers history, heritage areas and cultural diversity.
- Create places for people: This concerns access to local retail, open space and services.
- Connected neighbourhoods: This seeks to reduce congestion, facilitate level crossing removal and provide travel options.
- Better quality and greener streetscapes: This aims to create a clean and attractive public realm to promote active transport and a strong local identity.

The implementation chapter outlines key actions for theme one as follows:

- Undertake a major heritage review
- Explore opportunities to integrate public realm improvements with private development or planned state or Council infrastructure works.
- Introduce developer contributions for public infrastructure across change areas
- Update Council's Open Space Strategy and policies
- Introduce tree protection policy for new developments.
- Undertake precinct-wide car parking and traffic plans that include future thinking solutions, such as introducing new parking planning provisions across activity centre areas.

Local Economy

This theme aims to create vibrant activity centres with a thriving local economy. Council identifies that the network of activity centres should provide shopping and employment opportunities for residents in close proximity to their homes as per the 20 minute neighbourhood principle. Key industries are identified to be supported for major current and projected employment sectors including professional, scientific and technical services, healthcare and social assistance, education and training and retail trade. Office, healthcare, education, retail, hospitality and manufacturing sectors are assigned preferred locations based on intensities of employment focus for activity centres.

Theme two objectives include:

- More local jobs — less commuting: This seeks to accommodate additional jobs locally in key employment sectors.
- Foster human experiences by strengthening the heart of the community: This concerns the resilience of community and retail centres in the face of threats to traditional physical retail stores (such as e-commerce).
- Build a thriving local connection economy: This aims to support small business and highly skilled professionals.
- Vibrant night-life and weekends: This seeks to strengthen night time activities within major activity centres.

The implementation chapter outlines key actions for theme two as follows:

- Review and update Council's Business Development Strategy
- Review Census data when released (mid-2017) to determine and plan for employment trends within the municipality
- Review and update Council's Municipal Strategic Statement and local policies to integrate policies that respond to the changing economy and employment trends.

Housing

This theme aims to create quality housing and buildings for the future. Council acknowledges the current housing boom across the municipality, this theme guides how a future further 9,000 residents will be accommodated. The plan identifies a rise in young families but a shortage of affordable family homes as well as a lack of age-friendly housing to meet the needs of an ageing population. The strategy sets out projected increases by household types, most importantly aged care and townhouses. Preferred locations for apartments/mixed use, shop-top, residential apartments, family townhouses, affordable housing/social/short-term housing, aged care and student housing are set out by intensity of focus for housing scales and density.

Theme three objectives include:

- Provide housing for all: Ensuring diverse and appropriate housing options – particularly for rising groups of young families.
- Respect amenity and local character: Accommodating the growth should not compromise amenity of neighbourhoods and development should be appropriately scaled.
- Plan for future housing needs of the community: growth is to be concentrated into strategic areas to ensure no unreasonable impact on amenity.
- Build a sustainable future: Ensuring that housing developments adopt sustainable practices to mitigate the effect of increased populations on the environment.

The implementation chapter outlines key actions for theme three as follows:

- Carry out detailed consultation with the community about building design and development guidelines.
- Undertake a precinct by precinct review of development controls for each neighbourhood.
- Implement new environmental and water sustainable design policies.

3.2 Glen Eira Council and Community Plan 2017-2021

The Council and Community Plan provides high level strategic guidance for all other policies and plans. It was developed in conjunction with the ACHLES.

Scope of the document

This document was collaboratively prepared by Council in consultation with the community as a strategic framework to guide council and council activities. The four-year plan articulates a vision for the municipality and sets strategic priorities designed to drive council to 2021. The plan is responsive to Glen Eira's growing, culturally diverse, prosperous and community-oriented context and is informed by community desires. Following extensive consultation community engagement, five key proprieties and aspirations were set and are detailed in Appendix A.

Relation to ACHLES

The key themes and priorities of the Plan inform the ACHLE strategy. In particular, theme 1: liveable and well designed. Objectives of this theme that guide the production of the ACHLE include: 1.1 Create prosperous, accessible and vibrant urban places, 1.2 Encourage development that benefits the community, 1.3 Proactively plan for and manage change within our urban places and 1.4 Invest sustainably in our infrastructure and community assets.

3.3 Integrated Transport Strategy 2018-2031

The transport strategy supports increased activity and sustainable transport options in Glen Eira, particularly around key activity centres. It is informed by, and informs the ACHLE strategy.

Scope of Document

This document seeks to provide strategic guidance for transport priorities in response to forecasted residential and economic growth within the municipality. This strategy is set to align with and achieve the 15-year vision for transport in Glen Eira. Council developed the strategy to provide a policy link between the *Glen Eira Council and Community Plan 2017-2021* and *Plan Melbourne*. The strategy aims to reduce car use to 50 per cent of all trips.

Relation to ACHLES

The *Integrated Transport Strateg*y intends to provide a strategic context update to Glen Eira's Municipal Strategic Statement, guide and inform future structure plans, provide a policy direction and inform other strategies such as the ACHLE. The ACHLE likewise provides the Integrated Transport Strategy with place-based direction. Walkable and child friendly centres are core directions for the strategy which are detailed in Appendix A. This strategy further includes policies that specifically relate housing, activity and local economy in Glen Eira, such as the promotion of increased dwelling density at key transport hubs. Relevant policies are identified in Appendix A.

3.4 Planning strategies impact on housing document

Scope of document

This document was produced in 2017 and intends to serve as a preliminary analysis of how alternative planning outcomes may result in impacting the delivery of housing in Glen Eira. This document acts as a background report on preliminary strategic considerations and includes an analysis of expected housing targets, housing opportunity outcomes based on current planning policy and on a range of alternative planning policy scenarios including the implementation of structure plan and quality design guideline recommendations and an assessment of how each scenario 'stacks up' to deliver on expected housing targets.

Key findings and relation to ACHLES

The document was developed with consideration of community feedback that was developed for the ACHLES and other submissions in 2016. It provides a background on housing opportunities based on alternative planning approaches. The document identifies that 84% of housing opportunity is in activity centres across Glen Eira. The report analyses land in activity centres and their catchment areas based on three scenarios of varying degrees of implementation of the Quality Design Guidelines. Further details on scenario findings are in Appendix A. Although the base case (do nothing) would likely meet targets, there are concerns over the appropriateness of housing delivery. Therefore, the report recommended a nuanced and balanced approach to implementation to meet targets and concentrate housing in appropriate locations.

3.5 Quality Design Guidelines – Residential and Commercial and Mixed Use Areas

The Quality Design Guidelines provide detailed design guidance for new development. It was developed alongside the ACHLE and supports the typologies and hierarchy of Activity Centres identified in ACHLE.

Scope of documents

These documents were developed to assist in delivering the vision for neighbourhoods within Glen Eira in response to aspirations of the community. It intends to encourage a higher level of architectural design in new developments, clearly outline council's expectations of new developments and supports existing design guidance in the Planning Scheme and State Government guidelines. The guidelines assist the community understand what to expect from new developments and reflects their aspirations, it provides council with clear and consistent direction to achieve high quality design outcomes and assists development applicants to understand expectations and reduce conflicts in the application process.

Key findings and relation to ACHLE

The guidelines were developed with consideration of community feedback that was obtained alongside the development of the ACHLE and supports the transformation concepts that emerged from the ACHLE strategy. The guidelines provide further information on building typologies that connects back to preferred locations for housing and local economy set out in the ACHLE. For details on guidelines refer to Appendix A.

3.6 Draft Structure Plans

Bentleigh Structure Plan 2018-2031

Scope of document

The *Bentleigh Structure Plan* has responded to State Governments objectives of directing growth into existing busy and connected areas including Bentleigh as a designated major activity centre. The document applies to the busy central area of Bentleigh setting a long-term vision. The plan intends to guide decision making on investment, developments and infrastructure delivery at local and State government level. The document outlines changes to the precinct over 15 years that are designed to better protect heritage and neighbourhood character, protect the human scale character of the Centre Road precinct, protect traditional low scale residential areas with consistent heights and limiting dense apartment developments to specific areas, creating safe and attractive public spaces for the community and encourage diverse housing and employment opportunities. Pedestrian plaza spaces and pedestrian eat streets are proposed to contribute to a network of laneways as well as a new open space at Godfrey St.

Key findings and relevance to ACHLE

The structure plan was developed as the ACHLE supports Bentleigh as a major activity centre. The structure plan establishes a vision that Bentleigh will be an accessible, local shopping destination with a vibrant cafe and restaurant culture. It will maintain its community feel with open space, places for people to meet and gather and a broad range of local businesses, all of which will meet the needs of a diverse community. The low scale character of the precinct is to be protected with high density development to be focused along Centre Road with a focus on greater housing diversity and mixed use developments. Building heights are to a maximum of 2 heights across the majority of the precinct with up to 5 storeys north of Centre Road and the railway line and at strategic sites. Wellbeing and food, Housing Opportunity, Station, The heart of Bentleigh and Community precincts are proposed immediately surrounding the station. Road closure is proposed at Vickery St to support pedestrian access as well as various locations of pedestrian amenity improvements and parking relocations. Centre road is to be strengthened as a strategic cycling corridor.

Carnegie Structure Plan 2018-2031

Scope of document

This document applies to the busy central area of Carnegie and sets a 15-year vision. The plan seeks to guide and identify changes relating to future land use, transport, parking, building typology, employment, open space, infrastructure and neighbourhood character. The structure plan establishes protection to heritage areas of the Koornang Road precinct and better protect low rise residential areas from large scale dense apartment developments. It further seeks to provide consistent building heights in residential street, create safe and attractive community spaces to gather and come together, ensuring key sites provide local employment and diverse housing opportunities and regulating large scale developments.

Key findings and relevance to ACHLE

The structure plan set a vision that Carnegie will be a safe, connected and welcoming centre that embraces its authentic urban character and cultural identity. The centre will be a destination for entertainment, shopping and employment, supporting a range of businesses and interconnected community spaces that meet the needs of the local community. The structure plan was developed in support of the ACHLE that confirms Carnegie as a major activity centre with urban renewal opportunities. The activity centre boundary is centred on the commercial core of Koornang Road.

The plan identifies height increases at various strategic locations to support the ACHLE and State government policy. Higher density development is proposed at an urban renewal site north of the railway line to avoid conflicts with existing low density areas. Entertainment, Station, Retail, Urban Renewal, Housing Opportunity and Community precincts have been identified immediately surrounding Carnegie station. Higher density development is likewise encouraged along transport corridors such as Dandenong Rd, the railway line and Koornang Rd. The plan sets out specific place-based directions for public space along the Koornang Rd precinct including activation of frontage interfaces and two key new public spaces of a market and a park on Kokaribb Rd. Changes are proposed to improve movement, ease congestion and provide adequate parking at the activity centre. This includes the introduction of 2 shared streets (Egan St and Morton St), pedestrian links to public carparks, parking relocation, pedestrian amenity upgrade areas and crossing improvements.

Elsternwick Structure Plan 2018-2031

Scope of document

This document intends to set a long-term plan for changes in the Elsternwick precinct as an identified major activity centre of Glen Eira. The plan articulates changes that seek to better protect the heritage and character of the Glenhuntly Road precinct and protect identified heritage and neighbourhood character residential areas from dense apartment developments, create safe and attractive public spaces that serve a primary role for the community as a meeting place, ensure key locations support opportunities for greater local employment and housing and to ensure major developments provide substantial community benefit.

Key findings and relevance to ACHLE

The structure plan was developed as the ACHLE identifies Elsternwick as a major activity centre with urban renewal opportunities. The document sets out a vision that Elsternwick will be a safe, accessible and liveable centre that embraces its historic character and strong cultural and village feel. The centre will be a destination for its longstanding cultural and entertainment offerings, business and employment opportunities, and a range of quality local retail outlets and community spaces. The activity centre boundary is centred around the Glenhuntly Road commercial core and provides retail, commercial, dining and entertainment options. The historic, village style, low scale character of this strip is identified as requiring protection.

Development is strategically proposed at various scales with limited scope for larger scale development except at urban renewal sites. This precinct will primarily focus on economic growth although housing diversity is encouraged. The Station, Retail, Entertainment and cultural, Urban renewal and Housing opportunity precincts are identified immediately surrounding Elsternwick station. Existing housing protections are to be maintained with future growth will comprising sensitively designed medium density mixed use developments along Glen Huntly Rd and West of the railway line. The urban renewal north precinct will be delivered as a 'gateway' that is sensitive to surrounding low density residential areas, with a main focus on medium-high density mixed use and residential buildings. The urban renewal south precinct will support more intensive development on existing large scale commercial sites to provide housing, employment and open space. The plan identifies public space improvements including a new cultural precinct and outlines directions to increase access and movement throughout the activity centre including higher pedestrian amenity along Glen Huntly Rd, new one-way streets, road closures, improved rear laneway access to shops, strategic increases in parking, parking relocation and public transport advocacy.

East Village Strategic Site - Draft Plan November 2017

Scope of document

This document has been prepared by the Victorian Planning Authority (VPA) and Glen Eira City Council as a draft plan for the East Village precinct. The document follows from two rounds of community consultation and various draft technical reports to assist in developing planning controls. For key features of the precinct and the proposed objectives of the plan refer to Appendix A.

Key findings and relevance to ACHLE

The draft sets a vision that East Village will be a sustainable, mixed use precinct with a focus on innovative employment and education opportunities. Enhanced by green spaces and places for people, it will be supported by a diverse range of high-quality housing and retail that caters for all. East Village is identified in the ACHLE as an emerging health, education and innovation precinct. It is expected that the emerging health, education and employment precinct will accommodate 3,000 new dwellings, 6,000 new residents and 4,500 jobs.

Caulfield Station Precinct Structure Plan

The VPA is preparing a precinct structure plan for the Caulfield Station precinct in partnership with Glen Eira City Council, DELWP and with input from Stonnington City Council and Transport for Victoria. The structure plan will set a 15-20 year vision for the precinct and establish infrastructure and potential rezoning required to meet this vision. It is currently in a pre-draft stage following an initial phase of community and stakeholder engagement. The draft is due for completion in late 2018 - early 2019, which will undergo a second round of consultation and feedback prior plan finalisation in mid 2019.

The precincts focal point is Caulfield Train Station and surrounds, and includes Caulfield Racecourse Reserve, Monash University's Caulfield campus, Derby Road shopping strip, Caulfield Village, Glen Huntly Park and East Caulfield Recreation Reserve, housing and industrial land. It is bounded by Kambrook Road to the west, Dandenong Road to the North, Queens Avenue to the east and Neerim Road to the South.

The precinct is of significance as it is a key transport interchange point and is an identified education precinct of regional significance in Plan Melbourne and has experienced significant state investment in terms of transport infrastructure.

4. ASSESSMENT APPROACH

This section describes the method used for assessing Glen Eira's capacity to meet future demand for housing, commercial floorspace and retail floorspace.

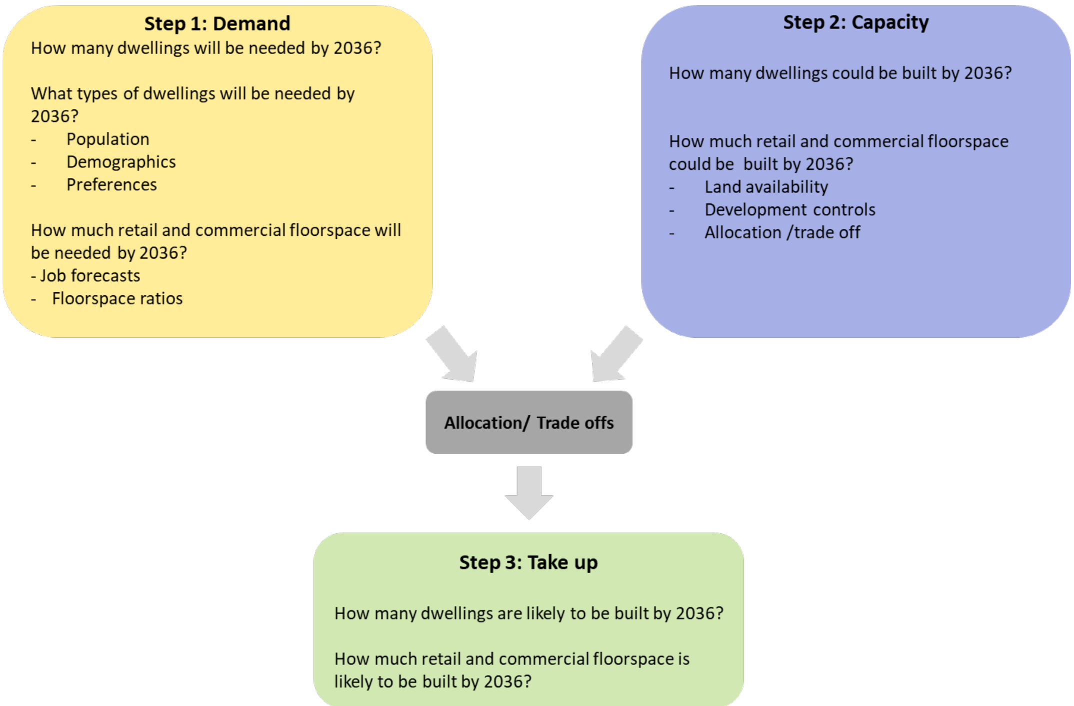
4.1 Overview

Existing planning controls and the draft structure plans provide guidance on the type of development that can occur in Glen Eira. Assessing whether existing planning controls and the structure plans, (and by extension, the ACHLE), adequately cater to future development requires an understanding of how much growth is anticipated, and, where it is anticipated to occur.

Understanding whether Glen Eira can absorb forecast growth involves identifying where there is capacity for additional dwellings and employment floorspace growth in the municipality and how this aligns with the scale and location of identified projected demand.

The likely future distribution for additional dwellings and employment floorspace was identified using a detailed and transparent approach which can be broadly summarised in three stages: *Demand, Capacity and Take Up.* The steps taken in this approach are summarised in the diagram below.

FIGURE 7: DEMAND, CAPACITY AND TAKE-UP MODEL



This approach considers demand, supply and likely future take up within the context of the current policies. It also acknowledges the intertwined nature of demand and supply, including the imperfect nature of the development market. This modelling helps understand, at a high level, the locations where there may be major differences between demand and supply, in order to underpin policy development and potential changes to planning controls.

It provides a means to assess the distribution of future growth based on the ACHLES.

This method allows for growth to be analysed at two scales. The first geography used for reporting used is by Activity Centre assessment areas. Activity Centre assessment areas include commercial and mixed use zoned land at the core of activity centres, and some residential zoned land immediately adjacent. These areas are anticipated to be included in structure plans for Activity Centres and are therefore included.

Areas outside of Activity Centre assessment areas are classified as remainder areas. Ie.. any area of McKinnon that is not located within an Activity Centre assessment area is classified as McKinnon (remainder). Local Activity Centres are not distinguished in this analysis and are classified as remainder areas. Activity Centre assessment area and remainder area geographies are defined by the SGS Small Area Model geography, allowing for more precise land use forecasting to occur.

A second geography uses .id Consulting small areas (.id small areas) which are equivalent to suburbs. The results of the .id Consulting small area analysis are located in the appendices.

Activity Centre assessment areas, remainder areas and .id small area boundaries are shown in Figure 8.

4.2 Demand

The purpose of this stage is to identify how many, and what type of dwellings are likely to be needed in the municipality. It is also to identify how much retail and commercial floorspace are likely to be needed in the municipality. It identifies the distribution of anticipated demand at the suburb level (.id small areas), and for individual Activity Centre assessment areas and remainder areas.

A number of different datasets are drawn on for both existing and future demand. These are summarised in Table 2.

TABLE 4: DATA SOURCES FOR DEMAND MODELLING

	2016 Demand	2036 Demand
Dwellings	HDD data (DELWP) .id Consulting forecasts (2016)	.id Consulting forecasts (2016) SGS Housing demand model
Retail floorspace	Blair Warman retail audit (2016) SGS SAM model	SGS retail demand model SGS SAM model
Commercial floorspace	SGS SAM model	SGS SAM model

Source: SGS Economics and Planning, 2018

Dwelling demand

Dwelling demand is based on recent trends in household type and structure, age profiles, and .id Consulting's 2016 projections. .id Consulting projections provide overall demand figures for housing for .id small areas which are equivalent to suburbs[2].

Modelling for dwelling demand uses

- Housing and Development data set (HDD) prepared by DELWP to identify recent trends in dwelling types by suburb.
- Id Consulting dwelling projections to use as a baseline for distributing dwelling demand across Activity Centre assessment areas and remainder areas.
- The SGS Housing Demand Model to identify the proportion of different housing types that will be demanded eg. single detached dwelling, townhouse/villa and apartment. This draws on ABS data to establish LGA wide demographic and housing trends

Retail demand

Retail demand is projected using a combination of datasets. This includes

- The audit of retail floorspace conducted by Blair Warman in 2016 identifies the amount of retail floorspace by activity centre, including numerous local centres across the municipality.
- SGS's retail demand model is then used to project future retail demand based on existing retail floorspace, as well as forecast population growth.
- SGS's Small Area Model includes projections for employment at a fine grain, called SAM zones and these are also used to forecast future retail demand.

[2] The .id Consulting forecasts are used consistently for demand modelling within the City of Maribyrnong. The Victoria in the future projections (VIF) developed by DEWLP provide useful context; VIF forecasts 52,350 dwellings in the City of Maribyrnong at 2031, while .id Consulting forecasts 56,000 dwellings at 2031.

Commercial Demand

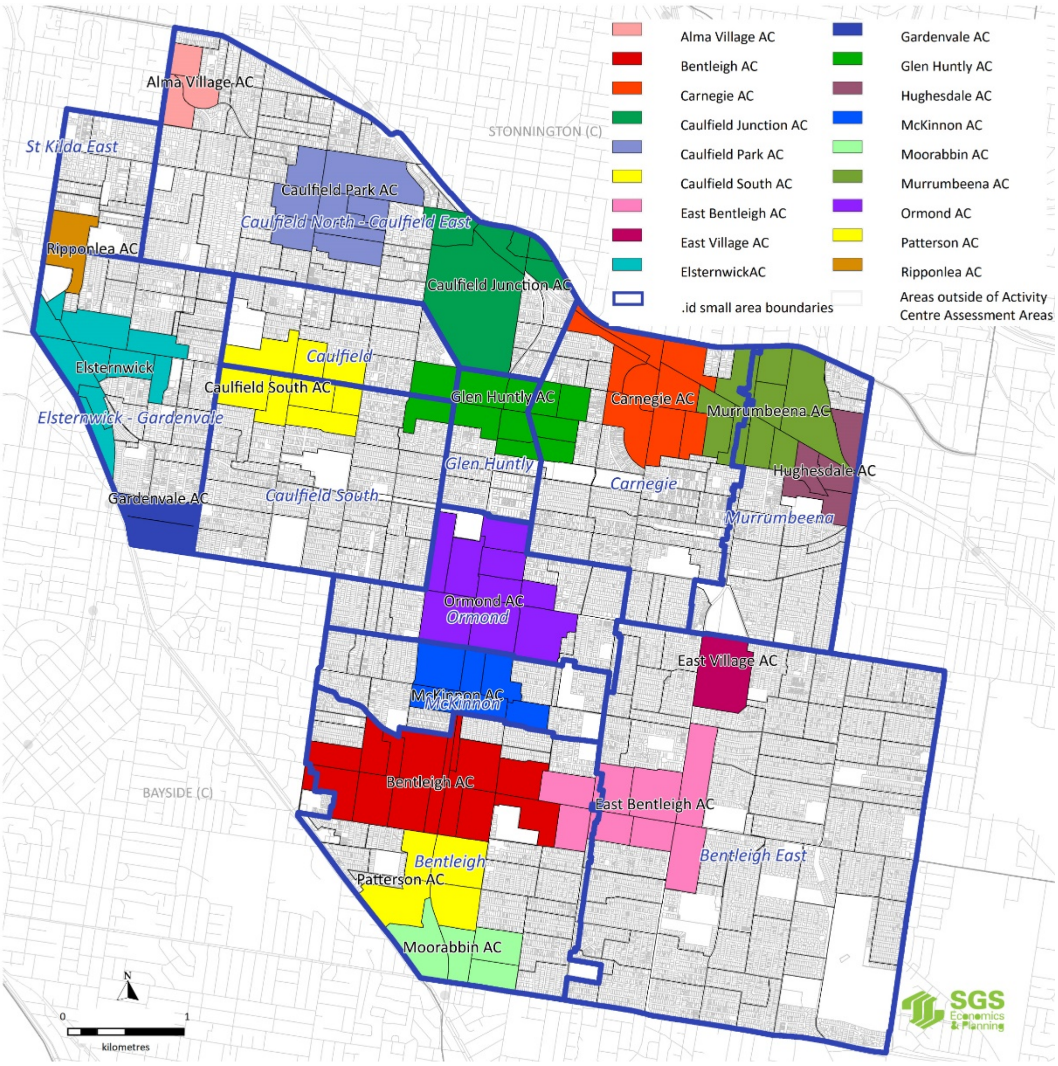
Commercial floorspace demand draws on the SGS Small Area Model, which provides employment forecasts for each SAM zone.

For the purposes of assigning commercial demand forecasts to Activity Centre assessment areas, remainder areas and .id small areas, each of these geographies is defined using SAM zones.

It is important to note that the SAM zones that are used to define each Activity Centre assessment area are an approximation of the core of employment activity within each centre, and do not reflect specific or articulated activity centre boundaries.

Activity Centre assessment areas, remainder areas, .id small area boundaries and SAM zone boundaries are shown in Figure 8.

FIGURE 8: RELATIONSHIP BETWEEN SAM ZONES, ACTIVITY CENTRES AND SUBURBS



Source: SGS Economics and Planning, 2018

4.3 Capacity

Capacity is a measure of how much l housing or employment floorspace could (theoretically) be built under current planning controls (including structure plans) if all opportunities were realised.

It is a theoretical assessment of the maximum number of dwellings, and maximum amount of employment floorspace that could be developed, and is intended to be indicative rather than absolute.

Realising theoretical capacity requires all existing opportunities to be fully realised. It does not take into account considerations such as market feasibility, or owner's willingness to develop.

The first step of capacity modelling is identifying all the land available for development. The second step is applying potential yield assumptions to available land to assess how much additional housing or employment floorspace could be developed. These steps are described below.

Overview of available land

Available land represents all land that has the potential to generate additional housing and or employment floor space supply for Glen Eira. This does not mean that it is necessarily feasible or that property owners are ready or willing to develop these sites. Typically only a small portion of available lots are likely to be developed in any one year.

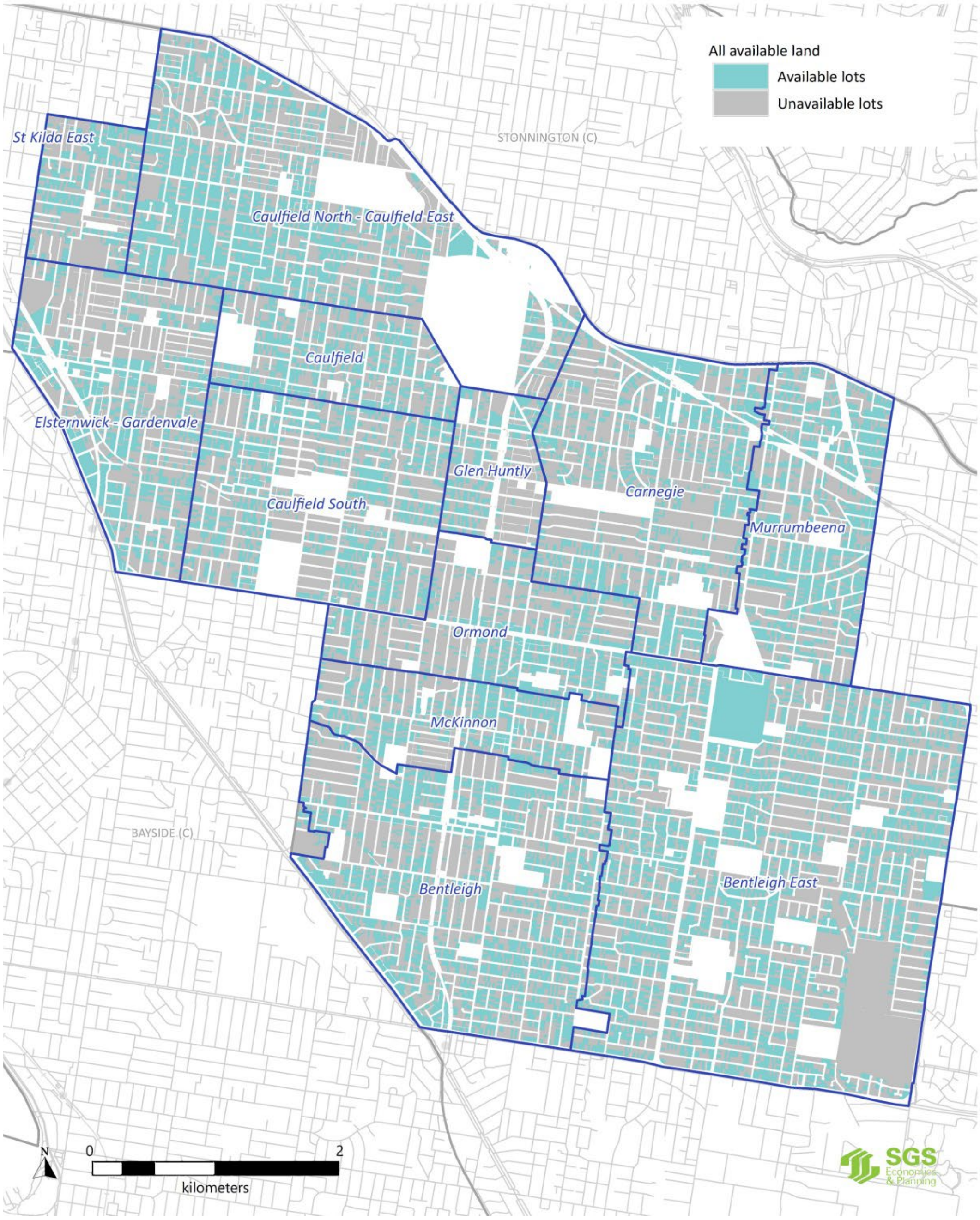
Net land area, which is defined as all land that is able to be developed for residential purposes, was derived by taking all applicable zones in Glen Eira (NRZ1, GRZ1-4, RGZ1-2, PDZ2, C1Z, and MUZ1-3) and removing elements such as roads and footpaths on which dwelling construction cannot occur.

Available land is then calculated by excluding lots with site-specific limitations (e.g. individual heritage significance) from net land area using Council's rates database and DELWP's Housing Development Data (HDD). Appendix E outlines the criteria and assumptions that are used to exclude sites.

Assessment of Available Land

The map below shows all available land. This highlights that after removing land subject to constraints, approximately 42% of land in developed areas are potentially available for future housing, commercial and or retail development. This equates to 1,134 hectares of available land.

FIGURE 9.ALL AVAILABLE LAND



Source: SGS Economics and Planning, 2018

Available Land Results

Approximately 42% of land in Glen Eira is available for further development; approximately 1,134 hectares.

As shown in Table 5, the majority of available land is outside of the Activity Centre assessment areas. The Activity Centre assessment areas with the largest amount of available land are Bentleigh Major Activity Centre (50ha),Bentleigh East Large Neighbourhood Activity Centre (41 ha), Murrumbeena Neighbourhood Activity Centre(34ha), Elsternwick Major Activity Centre (30 ha), and Carnegie Major Activity Centre (28 ha).

TABLE 5: SUMMARY OF AVAILABLE LAND BY ACTIVITY CENTRES ASSESSMENT AREAS

Activity Centre Asessment Area	Total Dwellings	Land (HA)	Total Available Land (HA)	Percentage of Available Land
Alma Village Neighbourhood Centre	534	17	6	36%
Bentleigh East Large Neighbourhood Activity Centre	1,590	72	41	56%
Bentleigh Major Activity Centre	2,189	114	50	44%
Carnegie Major Activity Centre with Urban Renewal	2,313	63	28	45%
Caulfield Park Neighbourhood Centre	1,145	48	24	50%
Caulfield South Large Neighbourhood Centre	1,521	59	27	46%
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	1,039	9	5	59%
East Village Emerging health, education and innovation precinct	0	24	24	100%
Elsternwick Major Activity Centre with Urban Renewal	1,727	55	30	55%
Gardenvale Neighbourhood Centre	534	18	7	40%
Glen Huntly Emerging Major Activity Centre	2,425	63	25	40%
Hughesdale Neighbourhood Centre	793	27	13	49%
McKinnon Neighbourhood Centre	925	40	20	51%
Moorabbin Junction Emerging MAC with Urban Renewal	860	36	19	53%
Murrumbeena Neighbourhood Centre	2,218	67	34	51%
Ormond Neighbourhood Centre	2,076	81	30	37%
Patterson Neighbourhood Centre	815	44	18	42%
Ripponlea Neighbourhood Centre	368	15	4	28%
Outside of Activity Centre Assessment Areas				
Bentleigh (remainder)	2,705	134	57	43%
Bentleigh East (remainder)	9,956	588	242	41%
Carnegie (remainder)	4,533	163	51	31%
Caulfield (remainder)	1,473	70	32	45%
Caulfield North - Caulfield East (remainder)	5671	244	116	47%
Caulfield South (remainder)	3,883	182	68	38%
Elsternwick - Gardenvale (remainder)	3,085	132	40	30%
Glen Huntly (remainder)	1,107	35	10	30%
McKinnon (remainder)	1,326	68	26	38%
Murrumbeena (remainder)	1,886	99	45	46%
Ormond (remainder)	1,413	64	23	36%
St Kilda East (remainder)	1,277	66	26	40%
Total	**61,387**	**2,698**	**1,144**	**42%**

Source: SGS Economics and Planning, 2018

Using the outputs of the lot level available land analysis, a series of yield and site density assumptions based on both prescriptive controls (i.e. max 2 dwellings per lot, minimum 2 storeys commercial floorspace), the planning intent of each zone (i.e. site density) or the planning intent of structure/framework plans were applied.

Overview of potential yield assumptions

Using the outputs of the lot level available land analysis, a series of yield and site density assumptions which reflect the zoning controls based on both prescriptive controls (i.e. max 2 dwellings per lot, ground floor retail) and the planning intent of each zone (i.e. site density, office development) were identified. These are documented in Appendix F.

Site Density

Site density (or simply 'density' as referred to in this report) is a measure which is only based on the land area available for the residential dwelling/commercial enterprise/retail enterprise itself and therefore does not include surrounding open space, roads, footpaths or other land required to support the land use. For this reason a site density figure for the same type of development is typically higher than broader density measures which include other land uses within their calculation.

Different site densities broadly correspond to different housing, mixed use and commercial typologies.

The Glen Eira Quality Design Guidelines identifies a series of building typologies for residential and employment developments. The building typologies are translated into site densities for housing and employment floorspace and are used to assess potential yield in the three structure planned areas, Bentleigh, Carnegie and Elsternwick.

In all other areas, a simpler three part housing typology is applied to residential development- Detached dwellings, townhouses/villas and apartments.

Structure Planned Activity Centres

The City of Glen Eira's Quality Design Guidelines for Commercial and Mixed Use Areas provides clarity on Council's expectations for new developments in activity centres. The structure planned Activity Centres, Bentleigh, Carnegie and Elsternwick directly incorporate the Quality Design Guidelines.

The Guidelines propose five building types, these are Shop-top Standard, Shop-top Heritage, Strategic Site A, Strategic Site B, and Urban Renewal. Building types are only used for determining the potential capacity of lots that are located within structure planned activity centres.

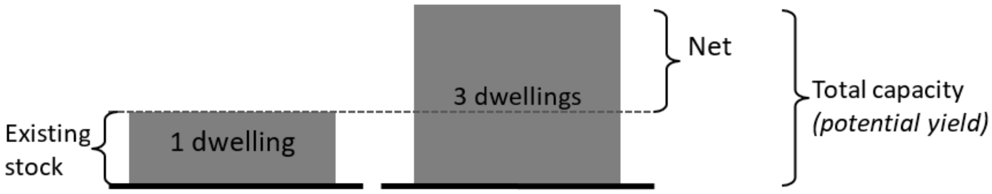
Appendix J includes maps of the structure planned areas and outlines the potential yield assumptions that are used for each typology.

Calculating capacity

Potential dwelling and employment floorspace capacity is calculated using lot size and site densities derived from planning zones and structure plans. The exception is Neighbourhood Residential zoned land, where the yield is a maximum of 2 dwellings per lot. This provides a total capacity figure for each lot.

As with most established parts of Melbourne, to accurately calculate the total potential number of **additional** dwellings or employment floorspace within a location, a comparison of the total capacity (or potential yield) with the existing stock is required. This is referred to as *net capacity*, as presented in the diagram below.

FIGURE 10. ESTIMATING CAPACITY



Source: SGS Economics and Planning, 2018

Existing stock is equivalent to 2016 demand, and the sources of existing stock are identified in Table 4.

4.4 Realised supply/take up

The next step is determining 'realised supply' which is an estimate of the capacity that could be taken up by demand in a particular time period.

For residential take-up, this is driven by a variety of factors which include dwelling demand, housing type preferences, development feasibility and historical development rates.

For commercial and retail take-up, it is driven by demand for floorspace, development feasibility and historic development trends.

The dynamic between supply and demand also needs to be considered for different sub-markets in different parts of the municipality. For example, while there is significant demand for semi-detached dwellings, this may also be realised via apartments and higher density dwellings as consumers/ households adjust their preferences.

The *demand* for different housing types and employment floorspace is then assessed against the *capacity* for different housing types and employment floorspace in each activity centre assessment area and suburb remainder area. In most cases, there is sufficient capacity to meet demand, however where demand does not align perfectly with capacity, some of the demand needs to re-allocated.

4.5 Land use assessments

The findings for residential, commercial and retail land use assessments are reported in the following three chapters. For each land use, the implications for ACHLES are identified.

5. RESIDENTIAL ASSESSMENT

This section describes the demand for new housing, and, where it is likely to occur. It assesses whether there is enough capacity for new residential development to support the demand. It then summarises the key findings that have implications for the ACHLES and which will inform any revisions to the strategy.

Across established areas of Melbourne, new housing is increasingly occurring in medium and higher density areas, and this trend is also occurring in Glen Eira. Medium and higher density developments are occurring in Activity Centres and areas close to public transport in Glen Eira. ACHLES proposes concentrating medium and higher density housing in Activity Centres and urban renewal precincts, where access to transport and services is the highest.

5.1 Housing demand

Across the City of Glen Eira, .id Consulting forecasts project demand for 16,017 new dwellings by 2036. Appendix G summarises the .id Consulting projections. Housing type forecasts by .id Consulting small area are also shown in Table 31 in Appendix G.

Across the municipality, on average 15 per cent of new housing demand will be for single detached dwellings, 40 per cent will be for townhouses/villas and 45 per cent for apartments. This varies by Activity Centre assessment area and remainder area. Demand for single detached dwellings is consistently higher in remainder areas and demand for apartments is higher in Activity Centre assessment areas.

The .id Consulting forecasts provide a baseline for determining the housing demand within Activity Centre assessment areas and remainder areas, and Table 3 shows the existing and projected demand for housing across the Activity Centre assessment areas and remainder areas.

The SGS Housing demand model is used to establish the municipal level demand for different types of housing. Recent development trends in the area are then used to distribute demand for different housing types across suburbs. These are then translated into forecasts by housing type for Activity Centre assessment areas and remainder areas, and all figures are benchmarked to .id Consulting forecast figures to ensure consistency.

By 2036, the Activity Centre assessment areas with the greatest levels of demand expected are Carnegie (1,769 additional dwellings), Caulfield Station (1,427 additional dwellings) and Caulfield South (1,297 additional dwellings) and Elsternwick (1,131 additional dwellings). There is also forecast to be significant demand in Caulfield North-Caulfield East remainder area (1,485 additional dwellings).

TABLE 6: EXISTING AND FUTURE DEMAND FOR HOUSING BY ACTIVITY CENTRE STUDY AREA

	Existing Dwelling supply (no. dwellings) 2016	Dwelling Demand 2036	Additional dwelling demand 2016-2036
Activity Centre assessment areas			
Alma Village Neighbourhood Centre	534	731	197
Bentleigh East Large Neighbourhood Activity Centre	1,590	2,260	670
Bentleigh Major Activity Centre	2,189	3,134	945
Carnegie Major Activity Centre with Urban Renewal	2,313	4,081	1,768
Caulfield Park Neighbourhood Centre	1,145	1,750	605
Caulfield South Large Neighbourhood Centre	1,521	2,818	1,297
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	1,039	2,466	1,427
East Village Emerging health, education and innovation precinct	0	786	786
Elsternwick Major Activity Centre with Urban Renewal	1,727	2,858	1,131
Gardenvale Neighbourhood Centre	534	570	36
Glen Huntly Emerging Major Activity Centre	2,425	2,841	416
Hughesdale Neighbourhood Centre	793	1,136	343
McKinnon Neighbourhood Centre	925	1,513	588
Moorabbin Junction Emerging MAC with Urban Renewal	860	1,043	183
Murrumbeena Neighbourhood Centre	2,218	3,128	910
Ormond Neighbourhood Centre	2,076	2,621	545
Patterson Neighbourhood Centre	815	873	58
Ripponlea Neighbourhood Centre	368	423	55
Outside of Activity Centre assessment areas			
Bentleigh (remainder)	2,705	3,101	396
Bentleigh East (remainder)	9,956	10,734	778
Carnegie (remainder)	4,533	4,876	343
Caulfield (remainder)	1,473	,1609	136
Caulfield North - Caulfield East (remainder)	5671	7,156	1,485
Caulfield South (remainder)	3,883	4,155	272
Elsternwick - Gardenvale (remainder)	3,085	3,330	245
Glen Huntly (remainder)	1,107	1,155	48
McKinnon (remainder)	1,326	1,424	98
Murrumbeena (remainder)	1,886	2,046	160
Ormond (remainder)	1,413	1,485	72
St Kilda East (remainder)	1,277	1,301	24
Total	**61,387**	**77,404**	**16,017**

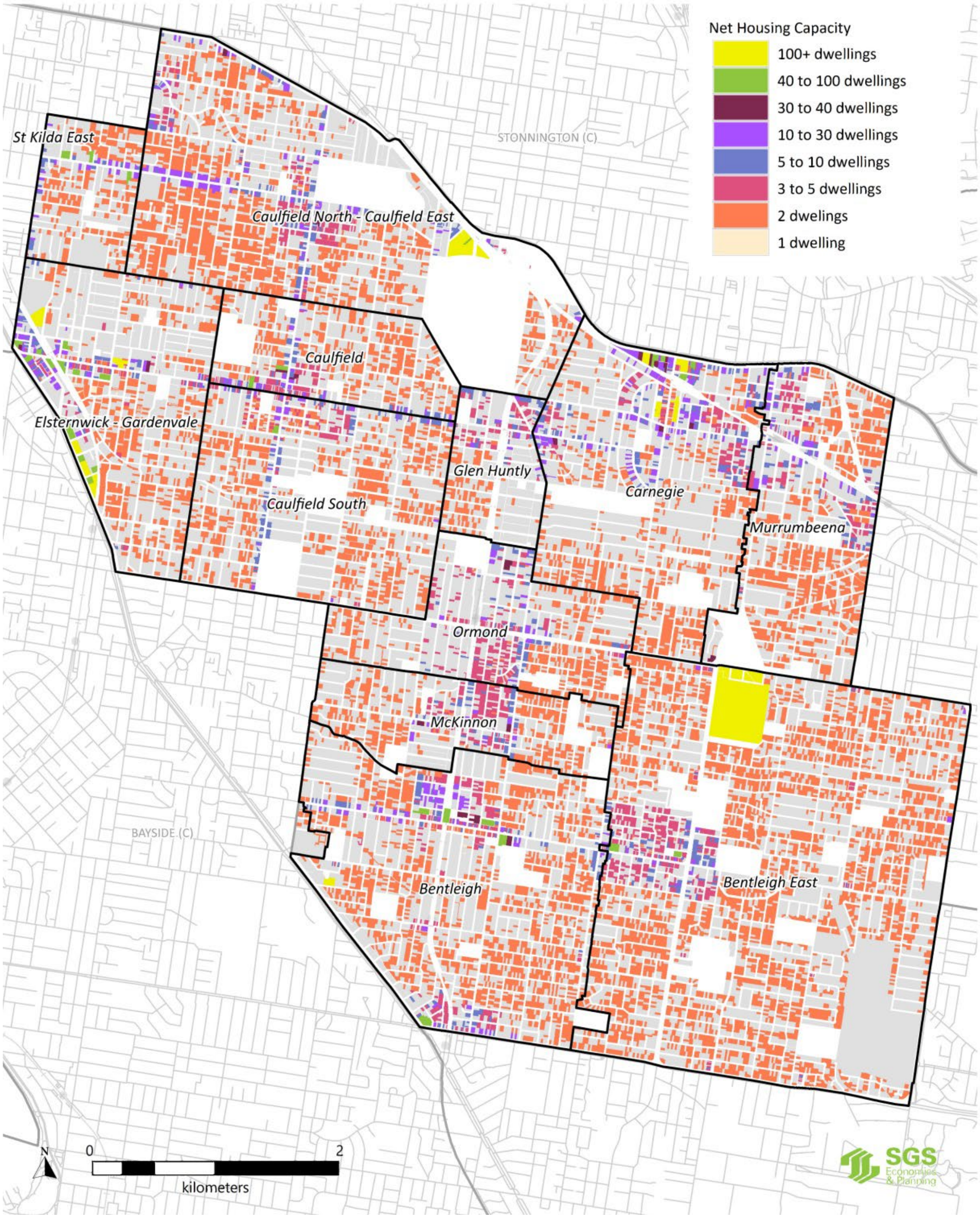
Source: SGS Economics and Planning

5.2 Residential Capacity

At 2016, the total dwelling capacity (or potential yield) for City of Glen Eira was found to be 61,387 dwellings, producing a net dwelling capacity of **44,993 additional dwellings**. This is shown in Table 5 and further detailed in Appendix G.

A map of net dwelling capacity across various bands is provided in Figure 11. This presents capacity at 2016 levels. It highlights the high levels of net dwelling capacity within the activity centre study areas, particularly in East Village Precinct, the Carnegie activity centre study area, Caulfield South activity centre study area, and East Bentleigh activity centre study area.

FIGURE 11. NET DWELLING CAPACITY



Source: SGS Economics and Planning, 2018

Note: Includes East Village Precinct

Capacity at Caulfield Station Precinct not included pending Structure Plan release

Residential Capacity by Building Typology

Table 7 provides a summary of net dwelling capacity by building types. The assumptions for building type mix are shown in Appendix G. The net capacity for dwellings are expected to mostly be in the form of apartments (49%), and a relatively even split between townhouses/villas (29%) and detached housing (22%). Elsternwick and Carnegie Major Activity Centre assessment areas both have capacity for over 3,000 new dwellings. There is also considerable capacity for new detached dwellings in the established area of Bentleigh East.

TABLE 7: NET DWELLING CAPACITY BY BUILDING TYPOLOGY

	Detached Dwellings	Townhouses /villas	Apartments	Total
Activity Centre Assessment Areas				
Alma Village Neighbourhood Centre	67	193	146	406
Bentleigh East Large Neighbourhood Activity Centre	467	1,163	955	2,586
Bentleigh Major Activity Centre	134	875	1,870	2,879
Carnegie Major Activity Centre with Urban Renewal	28	555	3,094	3,679
Caulfield Park Neighbourhood Centre	256	576	607	1,439
Caulfield South Large Neighbourhood Centre	237	635	1,241	2,113
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	2	10	1,442	1,454
East Village Emerging health, education and innovation precinct	-	900	2,100	3,000
Elsternwick Major Activity Centre with Urban Renewal	37	252	3,287	3,577
Gardenvale Neighbourhood Centre	50	21	69	140
Glen Huntly Emerging Major Activity Centre	194	603	1,143	1,940
Hughesdale Neighbourhood Centre	151	268	217	636
McKinnon Neighbourhood Centre	235	642	567	1,444
Moorabbin Junction Emerging MAC with Urban Renewal	186	321	350	857
Murrumbeena Neighbourhood Centre	350	1,009	814	2,173
Ormond Neighbourhood Centre	315	870	893	2,298
Patterson Neighbourhood Centre	171	73	138	382
Ripponlea Neighbourhood Centre	28	37	63	127
Outside of activity centres				
Bentleigh (remainder)	533	257	167	957
Bentleigh East (remainder)	2,453	1,051	380	3,885
Carnegie (remainder)	439	311	227	976
Caulfield (remainder)	250	196	130	577
Caulfield North - Caulfield East (remainder)	868	876	1,048	2,792
Caulfield South (remainder)	629	450	441	1,521
Elsternwick - Gardenvale (remainder)	299	213	213	726
Glen Huntly (remainder)	90	39	0	129
McKinnon (remainder)	252	108	28	388
Murrumbeena (remainder)	451	194	39	684
Ormond (remainder)	213	91	91	396
St Kilda East (remainder)	176	306	346	829
Total	**9,568**	**13,096**	**22,108**	**44,993**

Source: SGS Economics and Planning, 2018

Note: Capacity at Caulfield Station Precinct not included pending Structure Plan release

5.3 Take up of housing capacity 2016-2036

The first step in determining where new housing growth will be located requires assessing the relationship between housing capacity and housing demand in .id small areas. That is, how much new housing growth is possible in each .id small area , and how much demand is there for housing in each area.

This assessment indicates there is enough dwelling capacity across the municipality to cater for new housing growth to 2036, and beyond. Across the municipality, 36 per cent of housing capacity is forecast to be taken up by 2036, which means that at current levels of growth there is significant scope for further residential growth beyond 2036. The results of the distribution of demand and net residential capacity by .id small area are included in Appendix G.

The next step is to allocate housing demand to Activity Centre assessment areas. Table 5 summarises the net dwelling capacity and anticipated take up by Activity Centre assessment area and remainder area. There is higher take up of new housing within Activity Centre assessment areas than in the remainder areas. Ie. The percentage take up of net capacity is likely to be lower in established suburban areas outside of activity centres.

Despite recent structure planning to free up capacity in the Carnegie centre, take up is 48 per cent. This indicates a highly competitive market for new housing in the centre. Other structure planned Activity Centres, Bentleigh and Elsternwick, have lower rates of take-up at 33 and 32 per cent respectively. Interestingly, due to variations in net capacity, all these centres have roughly equivalent forecast demand of between 1,900 and 2,200 dwellings. The take-up of dwellings at Caulfield Station (associated with the Caulfield Village master planned development) means it is expected to have almost all of its capacity taken up by 2036.

The remainder area Caulfield North- Caulfield East has significant demand for new housing, and take up is also reasonably high at 53 per cent. Demand for new housing in all other remainder areas is reasonably modest- the proportion of housing capacity taken up is below 35 per cent, with the exception of Bentleigh East at 41 per cent. While this is higher, it is a result of very low demand in area with significant constraints to future development. This means that change in remainder areas will be incremental, with a little over a third of sites that are considered available for development being redeveloped.

Across all Activity Centre assessment areas and remainder areas, there is enough dwelling capacity to comfortably meet forecast dwelling demand.

Take up of housing capacity by dwelling type for Activity Centre assessment areas and remainder areas is included in Appendix G.

5.4 Implications for ACHLES

Existing planning controls, the draft structure plans for Carnegie, Elsternwick and Bentleigh Activity Centres and the indicative dwelling capacity for East Village and Caulfield Station precincts provide direction to concentrate growth in key centres. This direction aligns with the forecasts for growth, and there is enough capacity across the municipality to meet demand for housing beyond 2036.

TABLE 8: SUMMARY OF CAPACITY AND HOUSING TAKE UP BY ACTIVITY CENTRE ASSESSMENT AREA

	Total Existing Dwellings (2016)	Demand for dwellings 2016-2036	Net Residential Capacity 2016	Net Residential Capacity 2036	% net capacity takeup
Activity Centre assessment areas	A	B	C	C-B	B/C
Alma Village Neighbourhood Centre	534	197	406	209	49%
Bentleigh East Large Neighbourhood Activity Centre	1,590	670	2,586	1,916	26%
Bentleigh Major Activity Centre	2,189	945	2,879	1,934	33%
Carnegie Major Activity Centre with Urban Renewal	2,313	1,768	3,679	1,911	48%
Caulfield Park Neighbourhood Centre	1,145	605	1,439	834	42%
Caulfield South Large Neighbourhood Centre	1,521	1,297	2,113	816	61%
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	1,039	1427	1,454	27	98%
East Village Emerging health, education and innovation precinct	0	786	3,000	2,214	26%
Elsternwick Major Activity Centre with Urban Renewal	1,727	1,131	3,577	2,446	32%
Gardenvale Neighbourhood Centre	534	36	140	104	26%
Glen Huntly Emerging Major Activity Centre	2,425	416	1,940	1,524	21%
Hughesdale Neighbourhood Centre	793	343	636	293	54%
McKinnon Neighbourhood Centre	925	588	1,444	856	41%
Moorabbin Junction Emerging MAC with Urban Renewal	860	183	857	674	21%
Murrumbeena Neighbourhood Centre	2,218	910	2,173	1,263	42%
Ormond Neighbourhood Centre	2,076	545	2,298	1,753	24%
Patterson Neighbourhood Centre	815	58	382	324	15%
Ripponlea Neighbourhood Centre	368	55	127	72	43%
Outside of activity centres					
Bentleigh (remainder)	2,705	396	957	561	41%
Bentleigh East (remainder)	9,956	778	3,885	3,107	20%
Carnegie (remainder)	4,533	343	976	633	35%
Caulfield (remainder)	1,473	136	577	441	24%
Caulfield North - Caulfield East (remainder)	5,671	1,485	2,792	1,307	53%
Caulfield South (remainder)	3,883	272	1,521	1,249	18%
Elsternwick - Gardenvale (remainder)	3,085	245	726	481	34%
Glen Huntly (remainder)	1,107	48	129	81	37%
McKinnon (remainder)	1326	98	388	290	25%
Murrumbeena (remainder)	1,886	160	684	524	23%
Ormond (remainder)	1,413	72	396	324	18%
St Kilda East (remainder)	1,277	24	829	805	3%
Total	**61,387**	**16,017**	**44,993**	**28,976**	**36%**

Source: HDD data, DELWP, 2016. SGS Economics and Planning, 2018

Note: (1) Caulfield Station is currently undergoing Structure Planning, led by the VPA. This process will determine the extent of rezoning, height limits and land use mixes. It is anticipated that residential, retail and commercial floorspace capacity will be unlocked by the structure planning process, but the extent of this cannot be determined at present. Accordingly, any additional potential capacity has not been included.

6. COMMERCIAL ASSESSMENT

This section describes the demand for additional commercial floorspace and, where it is likely to occur. It assesses whether there is enough capacity for new commercial development to support the demand. It then summarises the key findings that have implications for the ACHLES and which will inform any revisions to the strategy.

The Victorian economy has shifted towards high skilled knowledge intense industries, centred around the inner city and employment nodes. Glen Eira is home to a highly skilled workforce, but there are currently limited opportunities for these workers to be employed locally within Glen Eira. There is scope to increase the local job offering, particularly in commercial sectors such as the professional, scientific and technical services.

The ACHLES emphasises the importance of commercial development, and structure planning in Carnegie, Bentleigh, Elsternwick includes controls that promote commercial development. This assessment looks at the extent to which forecast commercial development will be supported by the ACHLES.

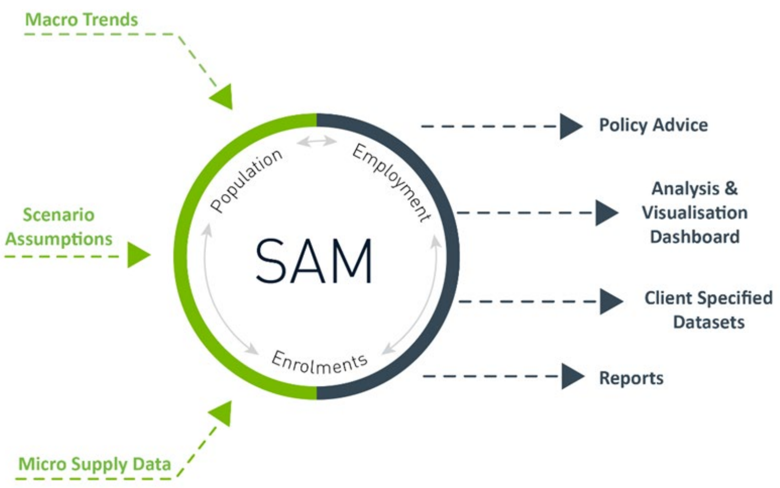
6.1 Commercial Floorspace Demand

SGS has forecast demand for commercial floorspace based on SGS Small Area Model (SAM) employment projections from 2016 to 2036. Standard job to floorspace ratios were applied to these projections to calculate a likely floorspace requirement into the future.

SAM creates a suite of forecast variables which are:

- Estimated using a combination of 'top-down' and 'bottom-up' methodologies, ensuring that macroeconomic drivers are integrated with micro spatial data and trends
- Disaggregated to a fine-grain spatial scale, allowing for custom geographies to be defined based on the scope of analysis, such as an activity centre or renewal precinct

One of SAM's key outputs is employment by industry, by location of the job. This is the key input for forecasting demand for commercial floorspace. The figure below describes the conceptual inputs into the SGS SAM Model.



Assumptions

For commercial floorspace demand, SAM's employment projections were limited to industries which would likely create a demand for office floorspace, as opposed to industrial or retail floorspace. Additionally, industries typically related to government employment were not included (such as public administration, health, and education), as these are typically occurring on Public Use zoned land, or outside of Activity Centre assessment areas. The industries included for commercial floorspace demand projections, and their employment to floorspace ratios (sqm), are listed below:

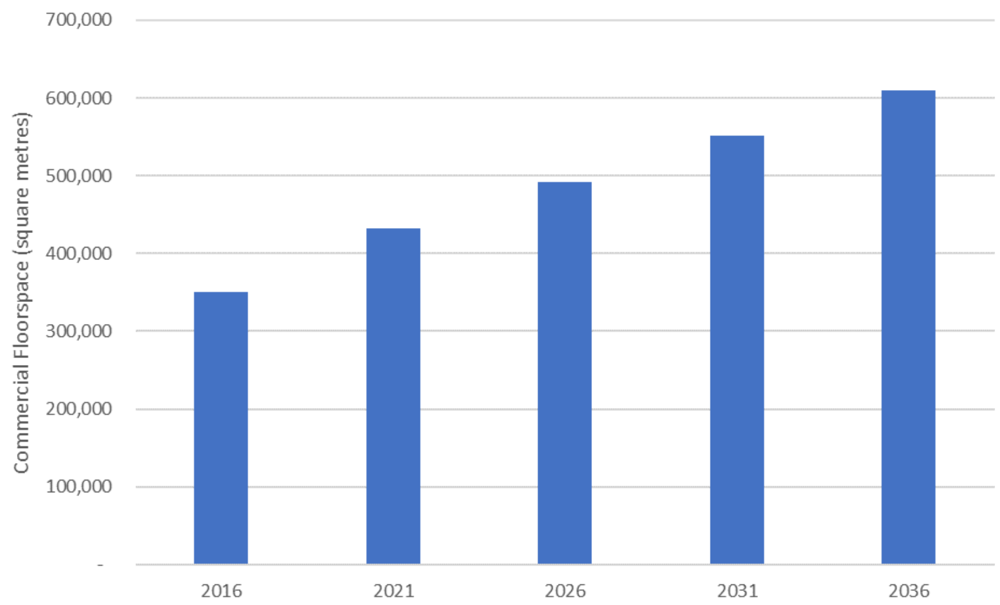
- Information Media and Telecommunications (1:60)
- Financial and Insurance Services (1:30)
- Rental, Hiring and Real Estate Services (1:40)
- Professional, Scientific and Technical Services (1:40)
- Administrative and Support Services (1:28)

Applying these standard floorspace to job ratios to these industries yields a 2016 demand of floorspace of 351,000 sqm. This grows to 610,000 sqm by 2036, implying an additional demand of 259,000 sqm of commercial floorspace over this period.

Confidence in the level of the commercial floorspace demand projection is lower than the retail projection as there is no available audit of existing commercial floorspace to benchmark to. This forecast includes an additional demand generated by the delivery of East Village.

Figure 12 illustrates the demand for commercial floorspace between 2016 and 2036.

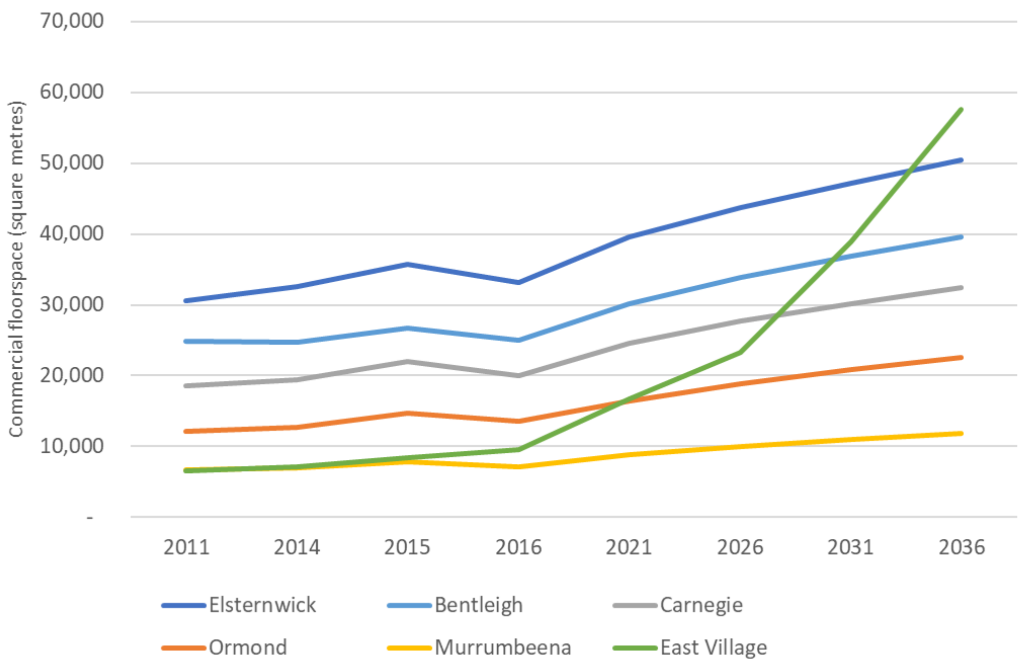
FIGURE 12. GLEN EIRA COMMERCIAL FLOORSPACE DEMAND (SQM)



Source: SGS Economics and Planning, 2018

The growth profile of selected Activity Centres is illustrated in Figure 13 with the substantial growth in East Village evident.

FIGURE 13. COMMERCIAL FLOORSPACE DEMAND (SQ METRES) IN SELECTED ACTIVITY CENTRES



Source: SGS Economics and Planning, 2018

Table 69 in Appendix I illustrates the demand for commercial floorspace between 2016 and 2036 identified in the SAM forecasts. Across Glen Eira. there is modest demand for commercial floorspace in most Neighbourhood Centres, compared with the Major Activity Centres. There is also significant demand for commercial floorspace outside of Activity Centre assessment areas in remainder areas.

Key assessment areas with strong demand for commercial floorspace include East Village precinct (48,000 square metres commercial floor space), Caulfield Park Neighbourhood Centre (20,200 square metres commercial floor space) and Elsternwick Major Activity Centre (17,300 square metres commercial floor space).

There is also comparably strong demand for commercial floorspace in some of the remainder areas located outside of Activity Centre assessment areas. This includes Bentleigh East (22,500 square metres commercial floor space) and Caulfield North-Caulfield east (14,300 square metres commercial floor space). This demand will need to be redistributed into Activity Centre assessment areas where planning controls support commercial development.

6.2 Commercial Capacity

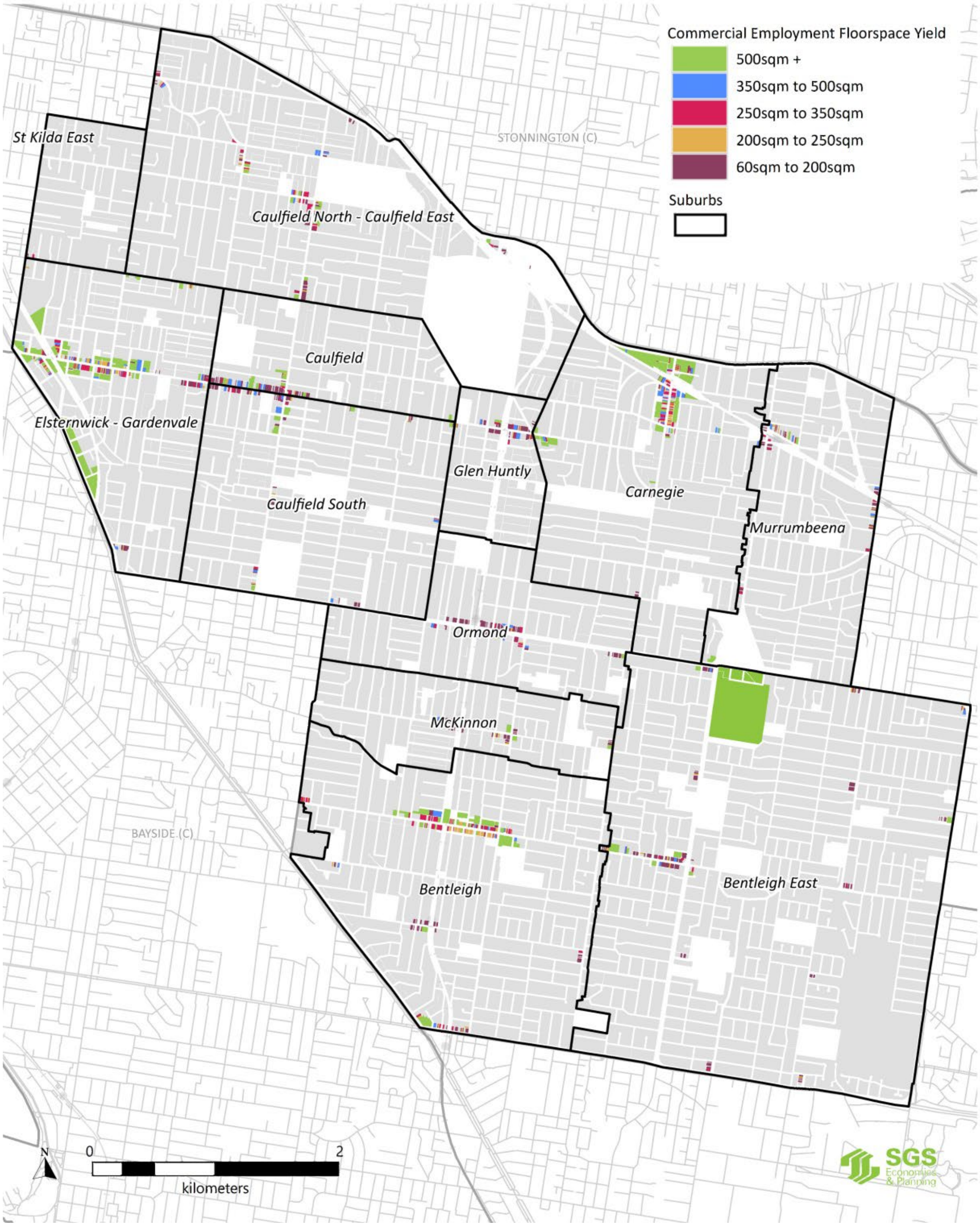
Assessment of commercial capacity translates assumptions for the Glen Eira Design Guidelines and planning zones into theoretical floorspace capacity. Ie. An assumption of one level of commercial activity in mixed use zoned land. The assumptions used are documented in Appendix H. In the structure planned areas, there are several precincts that include up to two storeys of commercial floorspace. Overall, commercial floorspace capacity has been conservatively estimated in this assessment.

The map below shows total commercial employment floorspace capacity across the municipality. Total commercial capacity includes the existing commercial floorspace, and additional commercial floorspace that could be provided under existing planning controls and structure plans.

At 2016, the total commercial floorspace capacity (or potential yield) for City of Glen Eira was found to be **814,519 square metres**, based on assumed jobs to floorspace ratios (outlined at the start of this section).

The majority of total commercial employment floorspace capacity is within Activity Centre assessment areas, in particular, Carnegie, Elsternwick, and East Village.

FIGURE 14. TOTAL COMMERCIAL EMPLOYMENT FLOORSPACE CAPACITY



Source: SGS Economics and Planning, 2018

The net commercial capacity takes into account existing commercial floorspace. In assessing net commercial capacity, figures for existing commercial floorspace are proportionally distributed across available and unavailable land. This ensures that existing commercial floorspace located on land that is considered unavailable for development is accounted for.

Net capacity is the amount of commercial floorspace capacity that remains on land available for redevelopment, after existing commercial floorspace has been accounted for.

This produces a net commercial capacity of **506,251** square metres of commercial floorspace. I.e. There is potential for an additional **506,251** square metres of commercial floors space in Glen Eira.

Table 9 includes an assessment of the total and net commercial floorspace capacity for each Activity Centre assessment area and remainder area.

6.3 Take up of commercial floorspace 2016-2036

By 2036, there is forecast demand for an additional 259,400 square metres of commercial floorspace. The SAM model forecasts showed that the distribution of this is very uneven.

For some activity centres, the forecast new demand between 2016 and 2036 identified in SAM Model forecasts exceeded the capacity of the Activity Centre assessment area to absorb the demand (SAM model forecasts are outlined in Table 69 in Appendix I). This resulted in the spatial realignment of some of the demand, as outlined below.

Spatial realignment

In areas where forecast demand exceeded the net capacity, demand was redistributed to other competitive and comparable Activity Centre assessment areas. Most future commercial demand in remainder areas was also redistributed to Activity Centre assessment areas.

Key areas where supply was redistributed from included Caulfield Park Neighbourhood Centre, Caulfield North-Caulfield East remainder area and Caulfield South remainder area. This was mostly redistributed into additional demand in the three major Activity Centre assessment areas, Carnegie, Elsternwick and Bentleigh.

Almost 60 per cent of commercial floorspace demand is anticipated to be met in the three major activity centres or Elsternwick, Bentleigh and Carnegie and the two urban renewal precincts at East Village and Caulfield Station.

Following spatial realignment, the existing demand for commercial floorspace still exceeds the theoretical total capacity for commercial floorspace in some areas, in particular Caulfield North- Caulfield East (remainder) and Caulfield South Large Neighbourhood Centre. This means that the amount of existing commercial floorspace exceeds what the planning zones and structure plans theoretically support.

Table 9 shows the distribution of commercial floorspace demand, the total and net capacity and the associated take up across Glen Eira**. 55 per cent of net commercial floorspace capacity** is projected to be taken up by 2036.

It also shows that there is still significant net capacity remaining in the Major Activity Centres after 2036, particularly Elsternwick which is forecast to have over 97,000 square metres net commercial capacity at 2036. Gardenvale and Patterson Neighbourhood Activity Centres are also anticipated to have significant net capacity remaining at 2036.

In contrast, Caulfield Park and Alma Village Neighbourhood Activity Centres are considered to have no capacity to absorb additional commercial floorspace at present, let alone by 2036.

6.4 Implications for ACHLES

The prevalence of commercial floorspace outside of activity centres suggests that there is significant commercial floorspace occurring on land not zoned for commercial uses, e.g. home offices.

Major Activity Centres all have significant net capacity to meet future commercial demand. Importantly, working to attract this demand will ensure that Major Activity Centres function according to the hierarchy described in ACHLES.

Structure planning of additional activity centres in the future and in line with ACHLE can work to attract additional floorspace demand from outside of activity centres, and to create greater commercial floorspace capacity within activity centres.

TABLE 9: TAKE UP OF COMMERCIAL CAPACITY BY ACTIVITY CENTRE AND REMAINDER AREA

	Existing Comm floor space 2016 (sqm) A	Redistributed Comm. Demand 2036 (sqm) B	Additional Comm. Floorspace Required: 2016-2036 C = B-A	Total Comm. Capacity on Available Land D	% available land E	Existing Comm. demand on available land F = E*A	Existing Comm. demand on unavailable land G=(1-E)*A	Net Comm. capacity 2016 H = D-F	Net Comm. capacity 2036 I = H-C
Activity Centre Assessment Area									
Alma Village Neighbourhood Centre	9,000	9,400	400	2,022	48%	4,319	4,681	-2,297	-2,697
Bentleigh East Large Neighbourhood Activity Centre	11,300	18,300	7,000	19,173	76%	8,584	2,716	10,589	3,589
Bentleigh Major Activity Centre	25,100	44,700	19,600	76,427	92%	23,127	1,973	53,300	33,700
Carnegie Major Activity Centre with Urban Renewal	20,000	66,500	46,500	102,580	94%	18,887	1,113	83,693	37,193
Caulfield Park Neighbourhood Centre	32,500	33,400	900	16,210	83%	26,919	5,581	-10,709	-11,609
Caulfield South Large Neighbourhood Centre	19,000	37,000	18,000	39,118	81%	15,360	3,640	23,758	5,758
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	3,500	5,500	2,000	2,159	43%	1,517	1,983	643	-1,357
East Village Emerging health, education and innovation precinct	9,600	57,650	48,050	57,650	100%	9,600		48,050	0
Elsternwick Major Activity Centre with Urban Renewal	33,100	62,600	29,500	158,914	98%	32,368	732	126,546	97,046
Gardenvale Neighbourhood Centre	5,000	8,400	3,400	26,951	91%	4,553	447	22,398	18,998
Glen Huntly Emerging Major Activity Centre	9,000	15,100	6,100	27,301	87%	7,796	1,204	19,505	13,405
Hughesdale Neighbourhood Centre	400	700	300	5,827	91%	363	37	5,464	5,164
McKinnon Neighbourhood Centre	8,100	13,700	5,600	12,704	79%	6,383	1,717	6,320	720
Moorabbin Junction Emerging MAC with Urban Renewal	10,600	16,600	6,000	35,125	92%	9,700	900	25,424	19,424
Murrumbeena Neighbourhood Centre	7,200	11,500	4,300	16,927	76%	5,491	1,709	11,436	7,136
Ormond Neighbourhood Centre	13,500	22,000	8,500	20,569	73%	9,909	3,591	10,660	2,160
Patterson Neighbourhood Centre	6,900	10,700	3,800	21,434	53%	3,628	3,272	17,806	14,006
Ripponlea Neighbourhood Centre	1,800	1,800	0	623	24%	437	1,363	187	187
Outside of activity centres									
Bentleigh (remainder)	6,100	10,000	3,900	58,690	98%	5,991	109	52,699	48,799
Bentleigh East (remainder)	37,600	53,600	16,000	51,776	87%	32,583	5,017	19,193	3,193
Carnegie (remainder)	8,500	10,000	1,500	2,617	80%	6,803	1,697	-4,186	-5,686
Caulfield (remainder)	6,400	10,300	3,900	17,199	92%	5,900	500	11,299	7,399
Caulfield North - Caulfield East (remainder)	22,500	23,900	1,400	12,218	84%	18,937	3,563	-6,719	-8,119
Caulfield South (remainder)	14,100	17,300	3,200	15,841	72%	10,149	3,951	5,691	2,491
Elsternwick - Gardenvale (remainder)	15,800	17,700	1,900	9,263	79%	12,492	3,308	-3,229	-5,129
Glen Huntly (remainder)	800	1,300	500	0	0%	0	800	0	-500
McKinnon (remainder)	2,200	2,300	100	1,344	92%	2,033	167	-689	-789
Murrumbeena (remainder)	4,400	7,200	2,800	1,568	43%	1,911	2,489	-343	-3,143
Ormond (remainder)	2,200	2,500	300	2,288	90%	1,969	231	319	19
St Kilda East (remainder)	4,700	4,700	0	0	0%	0	4,700	0	0
Total	**351,100**	**627,500**	**276,400**	**814,519**	**88%**	**308,498**	**42,602**	**506,021**	**229,621**

SOURCE:SGS Economics and Planning 2018

7. RETAIL ASSESSMENT

This section describes the demand for additional retail floorspace and, where it is likely to occur. It assesses whether there is enough capacity for new retail development to support the demand. It then summarises the key findings which have implications for the ACHLES and which will inform any revisions to the strategy.

In inner areas like Glen Eira that have good access to major retail destinations, retail floorspace is primarily population serving. That is, as the population grows, so too does the demand for local retail floorspace that meets everyday needs. The network and hierarchy of Activity Centres are intended to meet these everyday needs, with Major Activity Centres and urban renewal precincts accommodating significant retail activity and providing the most diverse retail offerings.

7.1 Retail floorspace demand

BWEC Review

SGS has reviewed the Blair Warman Economics (BWEC) Glen Eira Economic Analysis and Forecasting Study from 2016. Existing retail floorspace was identified in an extensive audit of retail floorspace that was undertaken in 2016. This provides the baseline for existing retail demand in Glen Eira.

Another feature of interest from the BWEC study are the forecasts of future retail floorspace requirements for Glen Eira.

BWEC conducted a survey of Glen Eira residents to determine that 73% of residents primarily shop for fresh food and groceries within the LGA.

BWEC identified the mix of retail floorspace within the LGA finding a total of around 202,000 sqm in retail and hospitality floorspace, broken down by:

- 55,000 sqm as food retailing
- 83,000 sqm for non-food retailing
- 64,000 sqm for hospitality.

Of the retail turnover in Glen Eira, residents account for around 80% of the spend, while the remaining 20% is retail spending by non-residents.

BWEC floorspace audit of Activity Centres identified Bentleigh, Elsternwick, and Carnegie as the major centres with around 30,000 sqm of retail floorspace in each centre.

Retail Forecast method

SGS has forecast demand for retail floorspace across the LGA using the SGS Retail Expenditure Model.

Retail is defined as businesses in the following categories:

- Supermarket
- Specialty Store
- Department Store
- Large Format Retail
- Hospitality

The SGS Retail Expenditure Model forecasts expenditure using estimates of the profile of household spending. The primary source of this is the MarketInfo estimates of expenditure per capita for different commodity types across all of Australia. This information is derived by MarketInfo from the ABS Household Expenditure Survey, which provides information on the market activities of households, and is based on demographic characteristics.

The profiles prepared by MarketInfo are provided in a per capita format, by a number of different commodity categories. MarketInfo is regarded as an industry standard. It is reported at the Statistical Area 1 (SA1) level to enable the analysis to be specific to Glen Eira.

The SGS small area expenditure estimates are projected forward to 2036 using data from the ABS Retail Trade series for Victoria. The Retail Trade series provides data on historical growth of real consumption by commodity category. These rates of growth are used to forecast change in real expenditure (i.e. excluding inflation).

These per capita forecasts are then used to calculate forecasts of total residential retail expenditure at an LGA level, using .id Consulting population forecasts for 2016 to 2036.

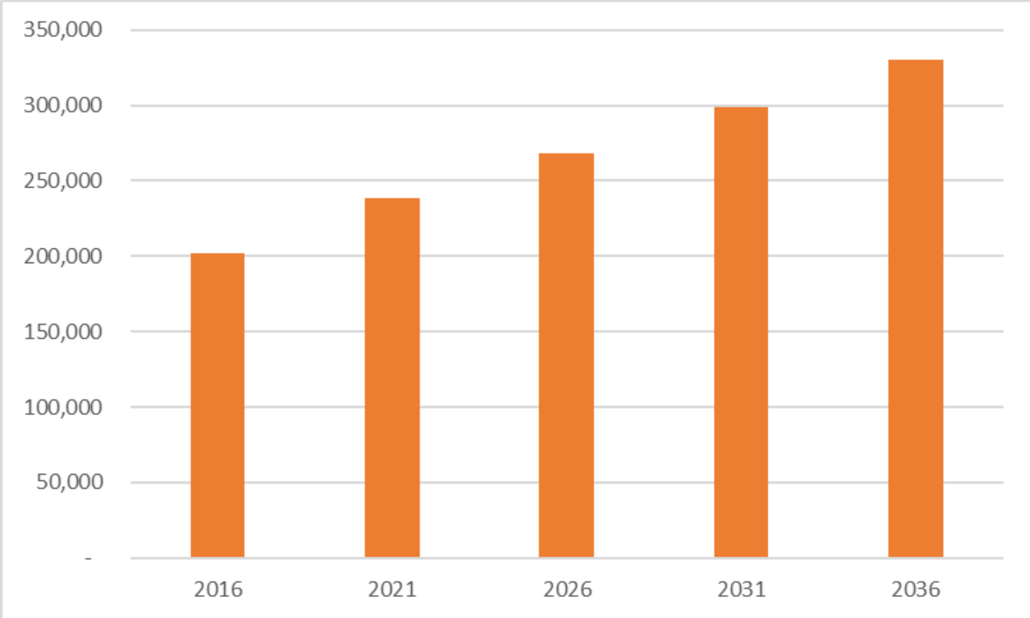
SGS has taken this growth in expenditure as forecast by the SGS Retail Expenditure Model and applied it to the BWEC's floorspace audit, benchmarking it to 2016. This implies that demand and supply for retail floorspace are in balance in 2016.

Furthermore, the impact of East Village is also included with an additional 19,000 sqm in retail floorspace demand as a result of East Village being realised by 2036. East Village retail floorspace demand has been informed by JLL's East Bentleigh Village Report for the VPA.

Retail floorspace demand

At an LGA level, SGS has projected that there will be demand for an **additional 128,300 sqm of retail floorspace** by 2036 across the LGA, compared to 2016 levels.

FIGURE 15. GLEN EIRA RETAIL FLOORSPACE DEMAND (SQM)



Source: SGS Economics and Planning, 2018

SGS has distributed this additional floorspace demand by activity centre. This is based on the relative sizes of activity centres remaining constant over 2016 to 2036, the base distribution between activity centres is based on the BWEC study. As evident in Table 67, growth in retail demand has been limited to activity centres.

The three Major Activity Centres of Carnegie, Bentleigh and Elsternwick all have retail demand forecasts in excess of 18,000 square metres between 2016 and 2036. There is also similar levels demand forecast in East Village. Caulfield South Large Neighbourhood Centre, Glen Huntly emerging Major Activity Çentre and Ormond Neighbourhood Centre all have forecast demand of around an additional 8,000 square metres of retail floor space.

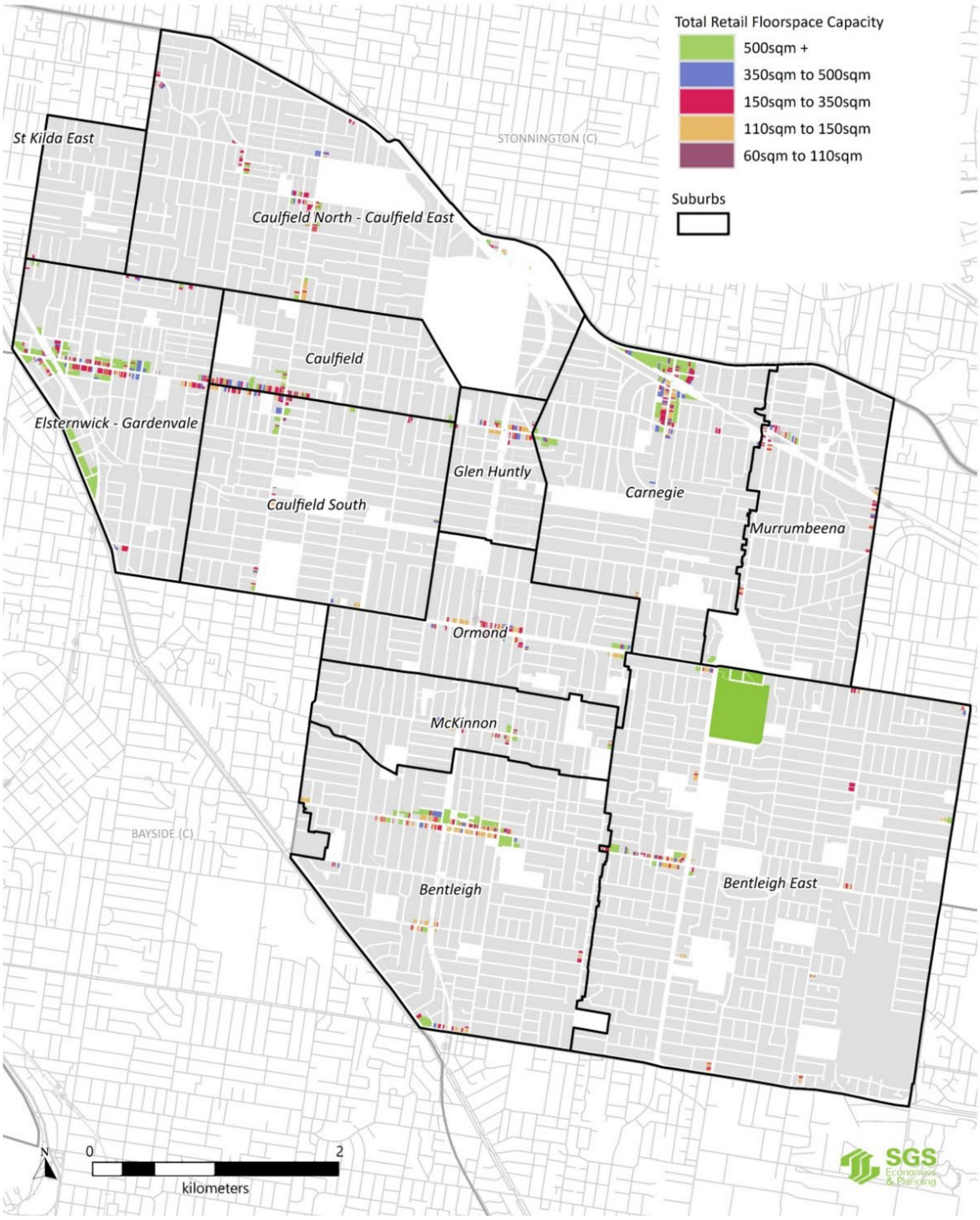
7.2 Retail Capacity

The Assessment of retail capacity translates assumptions for the Glen Eira Design Guidelines and planning zones into theoretical floorspace capacity. Ie. An assumption of one level of retail activity in mixed use zoned land and commercial one zoned land. The assumptions used are documented in Appendix I.

The map below shows the total retail employment floorspace capacity across the municipality. At 2016, the total retail floorspace capacity (or potential yield) for Glen Eira was found to be approximately **482,985 square metres** .

The majority of retail employment floorspace capacity are in activity centre study areas, particularly in East Village precinct as well as Carnegie, Elsternwick and Bentleigh Activity Centre assessment areas.

FIGURE 16. TOTAL RETAIL EMPLOYMENT FLOORSPACE CAPACITY



Source: SGS Economics and Planning, 2018 Note: Includes East Village Precinct and Capacity at Caulfield Station Precinct not included pending Structure Plan release

The net retail capacity takes into account existing demand (as documented in Table 10). Existing demand is distributed across available and unavailable land to take into account the presence of existing retail floorspace located on unavailable land.

Net retail capacity is the amount of retail floorspace capacity that remains on available land after existing demand has been accounted for.

The net capacity for retail floorspace is 313,213 square metres. I.e. There is potential for an additional 313,213 square metres of commercial floors space in Glen Eira. The distribution of retail floorspace capacity is shown in Table 10

The majority of retail employment floorspace capacity is within Elsternwick Major Activity Centre with Urban Renewal, Carnegie Major Activity Centre with Urban Renewal and Bentleigh Major Activity Centre. This is illustrated in Table 10.

7.3 Take up of retail capacity 2016-2036

Table 10 summarises retail demand, capacity and take up at 2036.At 2036, 40 per cent of net retail capacity is expected to be taken up across the municipality.

Across the municipality, demand for 128,300 square metres of retail floorspace is anticipated by 2036, equating to approximately 38 per cent of the net capacity for new retail development.

Major growth in retail floorspace is projected for Bentleigh Major Activity Centre, Carnegie Major Activity Centre, East Village and Elsternwick Major Activity Centre. These centres all have ample capacity to absorb this future demand. At 2036, these centres will still have significant capacity to grow the amount of retail floorspace.

None of the activity centres are projected to have retail demand exceed their capacity. Therefore, there was no need to redistribute any of the retail demand into comparable activity centres.

Caulfield Station precinct currently lacks the capacity to absorb anticipated demand for retail floorspace. This will be an important consideration in structure planning this precinct.

7.4 Implications for ACHLES

Demand for new retail floorspace is well provided for under existing planning controls. Looking for ways to attract more retail floorspace, or redistribute retail floor space is a low priority for ACHLES.

The demand for new retail floorspace and the amount of existing retail floorspace by Activity Centre assessment area aligns with the hierarchy of centres outlined in ACHLES, with the Major Centres consistently providing a greater amount of retail floorspace than the Neighbourhood Centres, and, having greater net retail capacity.

TABLE 10: TAKE UP OF RETAIL CAPACITY BY ACTIVITY CENTRE AND REMAINDER AREA

	Retail Demand 2016 (sqm) A	Retail Demand 2036 (sqm) B	Additional Retail Floorspace Required: 2016-2036 C = B-A	Total retail Capacity on Available Land D	% available land E	Existing retail demand on available land F = E*A	Existing retail demand on unavailable land G=(1-E)*A	Net retail capacity 2016 H = D-F	Net Retail capacity 2036 I = H-C
Activity Centre Assessment Areas									
Alma Village Neighbourhood Centre	1,000	1,700	700	2,022	48%	480	520	1,542	842
Bentleigh East Large Neighbourhood Activity Centre	9,700	16,000	6,300	19,173	76%	7,369	2,331	11,804	5,504
Bentleigh Major Activity Centre	35,400	58,100	22,700	58,711	90%	31,709	3,691	27,002	4,302
Carnegie Major Activity Centre with Urban Renewal	28,100	46,100	18,000	65,537	91%	25,447	2,653	40,090	22,090
Caulfield Park Neighbourhood Centre	4,500	7,400	2,900	16,210	83%	3,727	773	12,482	9,582
Caulfield South Large Neighbourhood Centre	11,900	19,600	7,700	39,118	81%	9,620	2,280	29,498	21,798
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	5,600	9,200	3,600	2,159	43%	2,426	3,174	-267	-3,867
East Village Emerging health, education and innovation precinct	-	19,100	19,100	27,650	100%	-	-	27,650	8,550
Elsternwick Major Activity Centre with Urban Renewal	29,000	47,600	18,600	88,729	90%	26,032	2,968	62,696	44,096
Gardenvale Neighbourhood Centre	1,400	2,300	900	2,824	56%	780	620	2,044	1,144
Glen Huntly Emerging Major Activity Centre	12,200	20,100	7,900	27,301	87%	10,568	1,632	16,733	8,833
Hughesdale Neighbourhood Centre	3,100	5,100	2,000	5,827	91%	2,815	285	3,012	1,012
McKinnon Neighbourhood Centre	4,500	7,400	2,900	12,704	79%	3,546	954	9,157	6,257
Moorabbin Junction Emerging MAC with Urban Renewal	2,800	4,600	1,800	9,296	89%	2,489	311	6,807	5,007
Murrumbeena Neighbourhood Centre	4,900	8,100	3,200	14,219	73%	3,553	1,347	10,666	7,466
Ormond Neighbourhood Centre	12,800	21,000	8,200	26,819	96%	12,250	550	14,569	6,369
Patterson Neighbourhood Centre	2,500	4,100	1,600	5,526	64%	1,602	898	3,924	2,324
Ripponlea Neighbourhood Centre	300	500	200	1,664	45%	135	165	1,529	1,329
Outside of activity centres									
Bentleigh (remainder)	1,000	1,000	-	2,392	71%	707	293	1,684	-
Bentleigh East (remainder)	9,000	9,000	-	15,434	76%	6,800	2,200	8,634	-
Carnegie (remainder)	3,600	3,600	-	2,617	80%	2,881	719	-264	-
Caulfield (remainder)	2,500	2,500	-	0	0%	0	2,500	0	-
Caulfield North - Caulfield East (remainder)	3,800	3,800	-	12,218	84%	3,198	602	9,020	-
Caulfield South (remainder)	4,500	4,500	-	6,905	53%	2,377	2,123	4,528	-
Elsternwick - Gardenvale (remainder)	6,300	6,300	-	9,344	79%	4,990	1,310	4,354	-
Glen Huntly (remainder)	-	-	-	0	0%	-	-	-	-
McKinnon (remainder)	300	300	-	1,344	92%	277	23	1,067	-
Murrumbeena (remainder)	1,000	1,000	-	1,568	43%	434	566	1,134	-
Ormond (remainder)	-	-	-	5,674	95%	-	-	-	-
St Kilda East (remainder)	-	-	-	0	0%	-	-	-	-
Total	**201,700**	**330,000**	**128,300**	**482,985**	**84%**	**169,771**	**31,929**	**313,213**	**184,913**

Source: SGS Economics and Planning, 2018

CONCLUDING REMARKS

The Draft Activity Centre, Housing and Local Economy Strategy 2017 (ACHLES) has been prepared to provide a long term strategic framework to guide the development and delivery of activity centres, housing and local economy for across Glen Eira.

Under existing planning controls in Glen Eira, including the recently structure planned Bentleigh, Carnegie and Elsternwick Major Activity Centres, there is ample residential housing capacity to absorb future growth in a mix of different housing types. Growth in single detached dwellings will largely occur outside of activity centres, while growth in apartments will be concentrated within activity centres. Townhouse/villas will occur across the municipality and will often provide a transition from low density Neighbourhood Residential Zones to higher density activity centre precincts. Change in remainder areas is expected to be incremental, and consist primarily of single dwellings and low rise townhouse/villa developments.

By 2036, the capacity for townhouses will have become constrained and new housing in Activity Centres will predominantly be in the form of apartments.

The current distribution of commercial floorspace indicates that there are a particularly high number of businesses operating out of homes across Glen Eira. In some suburbs, there is currently more commercial floorspace outside of activity centres than within activity centres. Council could investigate opportunities for encouraging new floorspace to locate within activity centres, rather than in residential zones. Structure planning of additional activity centres can work to attract this additional floorspace demand. This will support the development of attractive and vibrant activity centres across Glen Eira, in line with the framework outlined in the draft ACHLES.

Retail growth is expected to be concentrated in Bentleigh, Carnegie, Elsternwick Activity Centres and East Village. With the exception of East Village which is in the process of being structure planned by the VPA, these activity centres have recently been structure planned in line with the framework in ACHLES and all have ample capacity to absorb future retail growth. Even without structure planning, all other activity centres also have the capacity to absorb future retail growth forecasts. This suggests that implementing planning controls to attract retail development should be a low priority for council, however this will need to be assessed on a case by case basis for each activity centre. Caulfield Station precinct currently lacks the capacity to absorb anticipated demand for retail floorspace. This will be an important consideration in structure planning this precinct.

APPENDIX A: POLICY CONTEXT

Glen Eira Council and Community Plan 2017-2021

Key findings and priorities

Community engagement revealed key themes of concern including over-development and loss of neighbourhood character, traffic congestion, parking and transport, services and facilities, parks, open space, waste and sustainability, community safety, community connection and good governance and engagement. In response to these challenges, the Glen Eira Council and Community Plan aims to ensure that the City of Glen Eira remains amongst the most liveable, accessible, healthy and safest municipalities in the state.

The plan centres around five priorities and aspirations. These are to strive for a city that is:

- Theme 1 Liveable and well designed: a well-planned City that is a great place to be. This theme intends to prioritise decision making, infrastructure and design that promotes liveability and opportunities for social activities, employment and a range of opportunities for the community.
- Theme 2 Accessible and well connected: a city that is easy to move around, with safe travel options and walkable neighbourhoods. This priority seeks to achieve safe pedestrian network, upgrades to bicycle routes, address concerns over parking demands, and support a strong public transport. This seeks to develop a 20-minute city model, whereby residents can access goods and services in close proximity without requiring a car.
- Theme 3 Safe, healthy and inclusive: a strong and safe community that brings people together and enhances health and wellbeing. This theme intents facilitate access to health and support services and encourage and provide opportunities for the community to remain healthy and socially included.
- Theme 4 Clean and sustainable: an attractive and sustainable environment for future generations. This theme seeks reduce the city’s ecological footprint and support sustainable practices.
- Theme 5 Informed and engaged: a well governed council that is committed to transparency and engages residents in decision-making. This priority aspires to apply good governance and management practices in council activities, ensuring that decision making is transparent, community orientated and evidence based.

Integrated Transport Strategy 2018-2031

Walkable & Child Friendly centres:

Walkable activity centres are a place type that is emphasised in the strategy. Walkable activity centres are concentrated destinations to visit, shop, stay and work. For this place type, key objectives of the strategy are to meet parking needs and provide safe, attractive and comfortable walking environments at all hours of the day. Achieving this includes footpath widening to encourage street trading activities, providing consolidated parking and public facilities, create shared zones, pedestrian networks and safe connections for cyclists, and provide connections to between public transport nodes and major destinations. The strategy further emphasises the importance of child friendly neighbourhoods in providing walkable and safe residential streets for pedestrians, cyclists and vehicles to safely co-exist.

Key policies relating to the ACHLE

1.1 Support and promote increased dwelling density at key transport hubs
1.2 Focus employment and office development within major activity centres and strategic sites
4.2 Develop and implement parking overlays to contribute to the development of public parking within our centres
4.3 Incentivise and encourage office and employment development in major activity centres by exploring the review of statutory parking requirements
4.4 Incentivise and encourage preferred land uses that provide night-time activity within activity centres by exploring the review of statutory parking requirements.

Planning strategies impact on housing document

Scenarios and findings

This report explored three alternative scenarios for Glen Eira to meet its expected housing requirements of Plan Melbourne. Scenario one implemented key recommendations of the Quality Design Guidelines that restricts development in GRZ and C1Z. This saw an opportunity for 22,000 additional dwellings, almost 4,000 below the base case (do nothing) and did not meet council's targets. Scenario two investigates implementing the four structure plans. This saw an opportunity for an additional 29,000 dwellings, this output exceeded the base case by over 3,000 dwellings and council's expected targets.

Scenario three applied structure plan recommendations and Quality Design Guidelines to GRZ, RGZ and C1Z in all other activity centres. The saw an opportunity for 26,500 additional dwellings. This meets council's expected targets and generally aligns and slightly exceeds the base case. Although the base case (do nothing) would likely meet targets, there are concerns over the appropriateness of housing delivery. From this report, it is recommended that scenario three, a balancing act, be adopted as this would meet targets and concentrate housing in appropriate locations.

Quality Design Guidelines – residential and commercial and mixed use areas

Guidelines for commercial and mixed use areas

The commercial and mixed-use areas guideline covers four areas:

<u>Quality Design Principles</u>

- Street character: strengthening established built form and scale of activity centre streets.
- Well-designed buildings: ground level activation of frontages, pedestrian safety and attractive, comfortable streetscapes.
- Quality materials: hard wearing, natural and complementary to existing materials.
- Commercial priority: accommodation that serves the needs of trade and commerce.
- Public spaces: to meet the needs of existing and new residents/visitors.
- Access and parking: reducing the visual bulk of vehicle access and parking and ensuring pedestrian safety in access to parking.
- Community benefit: provide for community uses, employment, affordable housing and access.
- Environmentally sustainable design: reducing the environmental impact of developments.

<u>Building Types and Key Outcomes</u>

- <u>Shop Tops</u>:
  - *Heritage or character areas*- commercial or mixed use buildings that respect heritage or the significant area of the precinct. Typically, commercial on lower levels and

residential above. Includes: 3-4 storeys, human scale frontage design, respectful of sensitive interfaces, active frontages.
    - *Standard*- commercial and mixed use buildings that maintain the low-scale and fine grained streetscape. Includes: 3-5 storeys, human scale street wall, active frontages, sensitive to interfaces, podium tower form.

- Strategic Sites: Provide commercial and mixed-use buildings that deliver a range of employment, residential and community spaces. Includes: Podium and tower form, active edges, human scale design on lower floors, upper levels set back, as a benchmark 1 square metre of leasable commercial floorspace to 1 square metre of development site area, diverse commercial spaces with active experiential uses on ground level, diverse housing options, and basement carparking with access from rear laneway or secondary roads.
- Urban Renewal: commercial or mixed-use building that contributes to an integrated urban renewal precinct by accommodating employment and housing growth while also contributing to a high quality public realm. Includes: form appropriate with rest of the precinct, podium and tower forms with active human scale frontages, diverse housing options and with basement car parking with concealed access.

General Building Design Details

- Building scale, façade, detailing, materials and entries – well-designed buildings that positively contribute to the streetscape and local amenity.
- Weather protection and awnings – Buildings that enhance the public pedestrian realm.
- Signage, public art and lighting – Design to enhance amenity, safety and commercial viability of commercial areas.
- Safety, security and passive surveillance – well designed buildings and neighbourhoods to make people feel secure, such as passive surveillance, lighting, active frontages.
- Outlook and overlooking (managing visual privacy) – ensuring visual privacy as an important feature of residential amenity, designs should balance this need.
- Private open space – well designed balconies, terraces and courtyards for lifestyle quality.
- Urban greenery- landscape features to improve wellbeing, reduce the visual bulk of developments and to reduce a development's environmental impact.
- Active edges – streets, laneways and linkages – commercial and mixed-use buildings to have active interfaces with streets and laneways for amenity, vibrancy and permeability.
- Parking and access – parking and transport options relative to scale, use and location.
- Building services and waste management – Buildings to be functionally integrated to not compromise on aesthetics or residential amenity.

Designing for the Community

- Land use and commercial mix – colocation of uses facilitating vibrant and active streets.
- Dwelling diversity and universal design- housing diversity that promotes inclusive, adaptability and accessibility.
- Community benefit – major developments show positive outcomes for the community.
- Public open space – in major redevelopment of strategic sites and urban renewal sites.

Guidelines for residential areas

The residential guideline covers four areas:

Quality Design Principles

- Well-designed buildings: appropriately scaled buildings consider building separation, setbacks, facades, pedestrian entries and vehicle entries to strengthen residential character.
- Quality materials: hard wearing, natural and complementary to existing materials
- Residential garden setting: large front and rear gardens for continuous streetscapes.
- Canopy trees and greenery: retaining and planting new canopy trees.

- Access and parking: reducing the visual impact of vehicular accessways and parking.
- Residential roof forms: roof forms that minimise the scale of taller buildings.
- Managing overlooking: building design that reduces overlooking of neighbouring properties.
- Universal design: useable dwellings for a range of housing types and physical abilities.
- Environmental sustainability: minimising the environmental impact of new developments.

Building Types and Key Outcomes

- Heritage and character housing: This enables new housing or development on land under a Heritage Overlay or Neighbourhood Character Overlay ensuring minimal impact on the streetscape. Building are low scale at 1-2 storeys, preserve existing heritage/character elements, extensions are recessive
- Minimal change areas: This provides low density, low scale housing in areas of minimal change. One or two detached or semi-detached dwellings may be built on a lot that integrates with the local streetscape. Garden corridors at the front and rear of the property are maintained, with the primary area for open space on the ground floor.
- Garden townhouse: This provides town houses in a garden setting that maintains a low-scale 2-3 storey) residential form. Garden corridors are maintained at the front and rear of properties with consolidated vehicle access points to maximise landscaped areas.
- Townhouse and apartment mix: This seeks to provide medium density housing through a mixture of townhouses and apartments that maintain the low scale character at the street interface. Building heights are between 2-3 storeys, preferably along major roads, arterial roads and transport corridors. There is to be a transition from the street with 2 storeys facing streets with upper floors recessed. Garden corridors are maintained at the front and rear of properties.
- Garden Apartment: This seeks to create apartment developments that respect the amenity of adjacent lots. Apartments are to be 3-4 storeys with upper levels (over second story) recessed, with substantial garden corridors at the front and rear of the site to create a garden setting.
- Urban Apartment: Apartment buildings that create a dense urban form with building heights of 3-4 storeys unless otherwise defined in the planning scheme or adopted council document. These developments should provide a range of housing options and embrace the urban character.
- Non-residential land uses: Non-residential developments in a residential zone must be respectful of local residential context and comply with planning principles.

General Building Design Details

- Facades, materials and entries: buildings that contribute positively to the streetscape with high quality, attractive architecture, clear, welcoming entries and sustainable, hard-waring materials.
- Roof design: appropriately scaled and that incorporates sustainable design elements.
- Front fencing: balances privacy with passive surveillance and street activation.
- Safety security and passive surveillance: development contributes to a sense of safety, comfort and community presence within the site and surrounding area, through security features and passive surveillance of the public realm.
- Outlook and overlooking (managing visual privacy): avoiding overlooking through considered design to reduce the need for screening. Private open space and living areas should be used to maximise views, outlook, natural daylight and ventilation.
- Private open space: Private open spaces to be prioritised at ground floor, with well-designed balconies, terraces and courtyards. Larger developments should have communal open spaces.
- Landscaping: incorporated to enhance streetscapes and to provide green corridors and the front and rear of sites creating a garden character along residential streets.

- Parking and access: parking provision should be relative to the scale of the development, parking should be safe and secure for residents and visitors and adaptable for future use. High quality streetscapes and people are prioritised.
- Building services and waste management: services functionally integrated into design to minimise visual impact.

Design for the Community

- Dwelling diversity and universal design: New development should respond to the needs of the community. Designs should reduce accessibility barriers and support people with limited mobility. Dwelling sizes should be diverse for a range of needs. Dwellings should support pets and be adaptable to meet the needs of residents over time.

East Village Strategic Site

Key features of the precinct

- New commercial and office development along East Boundary Road at four to 6 storeys.
- Townhouses along the eastern and southern boundaries up to three storeys.
- Apartment buildings in the centre up to 8 storeys with commercial use on lower levels.
- Transition of industrial and service businesses along North Road to commercial and other employment uses over time (up to 6 storeys).
- New retail precinct along North Drive providing shopping, dining and employment opportunities.
- A central park on the north side of North Drive, an extension of Marlborough Street Reserve into the precinct and a town square on the south side of North Drive.
- Traffic management works including proposed signalised intersections on North Road and East Boundary Road.
- Off-road bicycle path through the precinct connecting North Road to East Boundary Road.
- Tree-lined streets providing safe pedestrian and bicycle travel.
- The Victorian Government is consulting on a proposed school to be located on South Drive. The school will provide pedestrian access from Marlborough Street Reserve through to Virginia Park.

Proposed objectives of the plan are:

- Promoting good urban design – housing diversity and appropriate scales.
- New jobs and services – commercial areas for offices, healthcare and manufacturing.
- Roads, public transport, paths and parking – reducing car dependency.
- Parks & green spaces – safe and accessible public spaces.
- Drainage and water management –integrated management to mitigate flood risks.
- Land contamination – ensuring safety for humans before development.

APPENDIX B: VCAT DECISIONS

VCAT citation and reference	Brief description
Housing Diversity Areas	
Cecily Denny Pty Ltd v Glen Eira CC [2016] VCAT 1401 6-10 Claire Street, McKinnon.	▪ 3-storey apartment building. ▪ General Residential Zone, Clause 22.07. ▪ Council refused. Decision set aside.
Yue Qi Group Pty Ltd v Glen Eira CC [2017] VCAT 153 6-8 Bevis Street, Bentleigh East	▪ 3-storey apartment building ▪ General Residential Zone, Clause 22.07. ▪ Council refused. Refusal upheld.
Neighbourhood Activity Centres (commercial)	
Launch No 4 Pty Ltd v Glen Eira CC [2015] VCAT 1655 (16 October 2015) 795-807 Centre Road and 150, 150A-E East Boundary Road, East Bentleigh.	▪ 6-storey mixed development with 96 dwellings ▪ Commercial 1 Zone, General Residential Zone, Clause 22.07. ▪ Within Bentleigh East Neighbourhood Activity Centre. ▪ Council refused. Decision set aside.
Rosenwald v Glen Eira CC [2015] VCAT 204 (3 March 2015) 144 & 144A Hawthorn Road, Caulfield North.	▪ 6-storey mixed use development, ▪ Commercial 1 Zone, Clause 22.07 ▪ Within Neighbourhood Activity Centre. ▪ Council refused. Decision set aside.
Chocolate Tower Pty Ltd v Glen Eira CC [2017] VCAT 891 67-77 Hawthorn Road, Caulfield North	▪ 7-storey mixed use development ▪ Commercial 1 Zone, Clause 22.07. ▪ Within Neighbourhood Activity Centre. ▪ Council refused. Decision set aside.
Centreway Pty Ltd v Glen Eira CC (Corrected) [2018] VCAT 296 240-250 McKinnon Road, McKinnon	▪ 6-storey mixed use development. ▪ Commercial 1 Zone, Clause 22.07 ▪ Within Neighbourhood Activity Centre. ▪ Council granted with conditions including 4 storeys). Council decision varied (including 6 storeys).
Elsternwick Urban Village	
Goal Number 7 Pty Ltd v Glen Eira CC [2017] VCAT 695 8 Egan Street, Carnegie	▪ 16-storey mixed use. ▪ Commercial 1 Zone, Clause 22.05. ▪ Within Carnegie Urban Village. ▪ Council refused. Decision upheld.
Lewcorp Properties Pty Ltd v Glen Eira CC [2018] VCAT 746 10 St Georges Road, Elsternwick	▪ 4-storey building. ▪ Residential Growth Zone, Heritage Overlay, Clause 22.05. ▪ Council refused. Decision set aside.

VCAT's decisions understood and generally supported Council's approach to have a hierarchy of densities across the municipality, with the highest density in the Urban Villages and Phoenix Precinct and the lower densities in identified minimal change areas, with a transitioning in between.

However, VCAT expressed a view that because of the large area of the municipality that has been designated minimal change, the other areas needed to make a greater contribution than expected by Council as expressed in the following case.

> *Council's strategy has sought to protect 78% of the municipality from any development more intense that 2 dwellings per allotment through the application of the NRZ and Minimal Change Area policy. This policy protects the majority of*

> *residential areas in Glen Eira from most forms of medium density housing, it also requires the remaining areas, referred to as Housing Diversity Areas, to absorb the housing demand of the entire municipality.* Cecily Denny Pty Ltd v Glen Eira CC [2016] VCAT 1401.

The member stated that the very high level of protection that Glen Eira City Council has adopted for the bulk of its residential areas, can only be achieved if substantial opportunities for new housing are created elsewhere and that these two strategies go hand in hand.

This position was reinforced when Council argued that the height of a building in McKinnon (a Neighbourhood Activity Centre) should be reduced from six storeys to four storeys as there is interim controls in place for Bentleigh and Carnegie (both Urban Villages) that set the maximum level at four storeys.

> *I appreciate the aim for a built form response linked to the role of an activity centre in the hierarchy however, it is not appropriate to adopt a blanket position that four storeys is the maximum height for commercial land in the McKinnon NAC because of controls introduced in other places (but not in the McKinnon NAC)…* Centreway Pty Ltd v Glen Eira CC (Corrected) [2018] VCAT 296

This reference to context was further expanded in Yue Qi Group Pty Ltd v Glen Eira CC which highlighted the importance of context on determining appropriate built form outcomes in Higher Density Areas.

> *I consider that the Tribunal has generally found that a significant level of change should be expected throughout the HDAs. However, being within an HDA is not a blank cheque to maximise the development capacity of a site. A proposed development is expected to respond to its emerging context, comprise a high design quality and to provide acceptable amenity for its future residents and neighbours. I now apply these considerations to the development before me.* Yue Qi Group Pty Ltd v Glen Eira CC [2017] VCAT 153 Red Dot decision

VCAT considered that the lack of neighbourhood character statements for the Housing Diversity Areas indicated that Council had not envisaged a particular preferred character for this areas, and was reliant on the purpose of the General Residential Zone to guide development in contrast to the Minimal Change Areas which have neighbourhood character statements (Clause 22.08).

More weight was placed on the purpose of encouraging '…a diversity of housing types and housing growth particularly in locations offering good access to services and transport' than the purpose of encouraging 'development that respects the neighbourhood character of the area'.

> *Local policy is silent as to future and existing characters in Housing Diversity Areas and so limited weight is to be given to preserving the existing mostly single storey suburban character.* Yue Qi Group Pty Ltd v Glen Eira CC [2017] VCAT 153 Red Dot decision

In two instances, Council's position was generally that apartment style development was not appropriate in Housing Density Areas, and a town house outcome would be more acceptable. VCAT highlighted the fact that the Victoria Planning Provisions do not distinguish between different forms of higher density housing in the General Residential Zone.

> *It was said that an apartment building is unsuitable in a local residential street. I am satisfied that an apartment building can be an appropriate housing form in Bevis Street and Filbert Street in a housing diversity area. I come to this finding for the following reasons.*
>
> *Firstly there is no distinction in the GRZ, clause 55 or in clause 74 (Definitions) between a duplex, a townhouse or an apartment building. All are defined as*

> *dwellings. The scheme distinguishes other forms of accommodation (residential building, residential village, boarding house and others) but has deliberately decided not to distinguish between other types of dwellings. Clause 55 guides the development of a range of buildings up to four storeys in height, without distinguishing amongst housing types. Hence all dwellings must be considered to be appropriate within the GRZ.*
>
> *…apartment buildings are an acceptable form of housing in housing diversity areas, but apartment buildings have to be well designed in terms of responding to their context and providing an acceptable level of amenity to neighbours and future residents.* Yue Qi Group Pty Ltd v Glen Eira CC [2017] VCAT 153 Red Dot decision

Overall height of buildings came up several times in the VCAT cases examined. On two occasions VCAT supported Council's position that the proposed height was too high. In the other cases VCAT did not support Council.

Council consistently argued about the need for a transition in heights across the hierarchy of centres and housing diversity areas, and preferred maximum heights for centres. VCAT found that the planning scheme provided little in the way of guidance around preferred or mandatory maximum heights in centres, particularly highlighting the lack of controls such as Design and Development Overlays. VCAT found a more nuanced and property specific approach was appropriate given the lack of urban design controls.

> *'I consider that there is nothing in the scheme that would suggest that a uniform height is required in centres such as this that have no mandatory height limit and provided that they can manage the interface with adjoining residential properties it is appropriate grant this additional height'* Centreway Pty Ltd v Glen Eira CC [2015] VCAT 554 quoted in Launch No 4 Pty Ltd v Glen Eira CC [2015] VCAT 1655.

VCAT consistently resisted Council's position that heights should be restricted in centres based on the existing built form.

> *We are not persuaded that the building would be unduly tall in this centre because:*
>
> - *There is no specific guidance in the scheme in a schedule to the zone, a DDO or a policy regarding the preferred height. There are buildings of six, five and four storeys in the centre, hence this building with its recessed top storey will not appear to be out of scale with the emerging built form.*
> - *There is good prospect that the adjoining sites to the north and south will also be developed for buildings of similar height, hence in time it would be one of a cluster of tall buildings rather than an anomaly.*
> - *Lot sizes in the centre, behind the shops that front Hawthorn Road are generally large and capable of accommodating taller buildings. Chocolate Tower Pty Ltd v Glen Eira CC [2017] VCAT 891*
>
> *'There is no requirement that new built form match the existing built form.* Launch No 4 Pty Ltd v Glen Eira CC [2015] VCAT 1655 (16 October 2015)

Scale and bulk of development were consistently discussed in the VCAT cases.

> *Based on existing conditions, the proposal would be obviously taller than buildings in the activity centre. But the height cannot be considered alone. The manner in which the building is massed and graduated is crucial.* Centreway Pty Ltd v Glen Eira CC (Corrected) [2018] VCAT 296
>
> *The subject site is located within a neighbourhood activity centre. State and local policy support an intensification of the use and development within the centre. Given the size and context of the site it lends itself to higher density development.* Launch No 4 Pty Ltd v Glen Eira CC [2015] VCAT 1655 (16 October 2015)
>
> *The determinative matter in this review is no density per se, or distance from the commercial zone, but whether the height, scale and massing of a proposed building(s)*

would fit into the neighbourhood. Yue Qi Group Pty Ltd v Glen Eira CC [2017] VCAT 153 Red Dot decision

Unsurprisingly, VCAT was as concerned above overall height of buildings as its was concerned about the overall scale and bulk of the building and how it appears from the public realm and adjoining private properties.

Key factors included lot size, site context and the role the area has been allocated in the local policy framework to achieve housing goals for the municipality.

The overall message is that the lack of detailed analysis of housing diversity areas, neighbourhood activity centres and urban villages means that decisions about built form will be made in a site specific way, in the context of the level of change envisaged for that site.

APPENDIX C: BACKGROUND CONTEXT

Recent housing trends

TABLE 11: NUMBER OF DWELLINGS DEVELOPED 2005 - 2016 BY DIFFERENT DENSITIES

	200 plus dwellings per hectare	100 - 200 dwellings per hectare	50 - 100 dwellings per hectare	25 - 50 dwellings per hectare	1 - 25 dwellings per hectare	Total
Elsternwick	430	9	18	87	109	653
Bentleigh	278	152	74	698	284	1486
Bentleigh East	126	69	80	1604	504	2383
Brighton East	0	0	0	0	1	1
Carnegie	565	283	138	279	88	1353
Caulfield	93	90	17	116	79	395
Caulfield East	71	13	23	20	6	133
Caulfield North	777	287	144	165	258	1631
Caulfield South	89	85	28	243	223	668
Gardenvale	0	26	4	10	13	53
Glen Huntly	292	97	19	49	11	468
McKinnon	85	45	61	220	101	512
Murrumbeena	151	238	70	178	78	715
Ormond	35	132	45	150	61	423
St Kilda East	60	65	28	34	40	227
Total	3052	1591	749	3853	1856	11101

Source: Housing Development Data

TABLE 12: NUMBER OF DWELLINGS DEVELOPED 2005 - 2016 BY SIZE OF HOUSING PROJECT

	20 plus dwellings	11-20 dwellings	6- 10 dwellings	3-5 dwellings	2 dwellings	1 dwelling	replacement housing (knockdown/ rebuild)	total
Elsternwick	430	0	23	10	72	56	62	653
Bentleigh	278	82	92	120	620	159	135	1486
Bentleigh East	126	39	57	175	1442	299	245	2383
Brighton East	0	0	0	0	0	1	0	1
Carnegie	527	246	143	130	214	65	28	1353
Caulfield	93	50	40	44	86	53	29	395
Caulfield East	71	13	14	15	14	3	3	133
Caulfield North	777	249	142	74	126	174	89	1631
Caulfield South	89	57	43	25	226	149	79	668
Gardenvale	0	26	0	7	4	4	12	53
Glen Huntly	292	77	35	16	34	11	3	468
McKinnon	85	37	30	87	172	52	49	512
Murrumbeena	151	203	79	50	144	60	28	715
Ormond	35	122	28	51	118	51	18	423
St Kilda East	60	65	28	9	24	28	13	227
total	3014	1266	754	813	3296	1165	793	11101

Source: Housing Development Data

TABLE 13: MEDIAN HOUSING PRICES

Locality	2007 ($)	2017 ($)	Growth PA (%)
St Kilda East	858,000	1,460,000	5.5
Elsternwick	972,500	2,000,000	7.5
Caulfield North	1,125,000	2,260,000	7.2
Caulfield	912,500	1,859,000	7.4
Caulfield South	850,000	1,681,500	7.1
Caulfield East	722,500	1,500,000	7.6
Glen Huntly	850,500	1,415,000	5.2
Ormond	830,000	1,604,500	6.8
Mckinnon	800,000	1,725,000	8.0
Carnegie	725,500	1,502,500	7.6
Bentleigh	720,000	1,450,000	7.3
Bentleigh East	570,000	1,260,000	8.3
Brighton East	960,000	1,880,000	7.0
Murrumbeena	645,500	1,420,000	8.2
South Eastern region average	<tbc>	<tbc>	<tbc>
Melbourne average	<tbc>	<tbc>	<tbc>

SOURCE: Valuer General 2018

Recent employment trends

The Victorian economy is changing, influenced by global trends. Over the past few decades technology has transformed it from one based on manufacturing and agriculture to one based on high skill, knowledge intense industries and services. Due to these economic changes, employment growth in broader Melbourne has increasingly been clustering around the inner city and major economic nodes. Previous major renewal areas, such as Southbank and Docklands, along with supporting infrastructure investments, have enabled Melbourne to continue to grow its inner-city economy. Areas with good access to this economy (such as Glen Eira) continue to be attractive places for the highly skilled workforce to reside. This change also affects both the type of jobs that Glen Eira residents do, and the type of jobs which are located in Glen Eira. As the economy shifts to a more services-based economy, inner parts of Melbourne accommodate significant employment growth.

WHERE RESIDENTS WORKTABLE 14: PROPORTION OF LOCAL JOBS HELD BY RESIDENTS OF LGA

LGA of Residence	% local jobs in LGA held by local residents	% of local residents who work within their own LGA
Glen Eira (C)	40%	22%
Bayside (C)	40%	26%
Monash (C)	22%	29%
Kingston (C)	8%	30%

SOURCE: ABS Census 2016

Where workers live

Glen Eira provides local employment for some residents and 40 per cent of jobs in Glen Eira are held by residents of the municipality as seen in Table 15. Beyond Glen Eira, 21 per cent of the workforce is coming from those living in nearby municipalities such as Kingston, Monash and Bayside. This is shown in Table 15.

There is a limited supply of local employment in the professionals, scientific and technical services industry, which is the largest employment sector for local residents (Refer to Table 21 in Appendix D). Only 21 %[3] of those employed in professionals, scientific and technical services industry are employed locally.

TABLE 15: PLACE OF RESIDENCE OF PEOPLE EMPLOYED IN GLEN EIRA

LGA of Residence	Employed in Glen Eira	% employment in Glen Eira
Glen Eira (C)	14,793	40%
Kingston (C)	3,167	9%
Monash (C)	2,393	6%
Bayside (C)	2,248	6%
Port Phillip (C)	1,677	5%
Casey (C)	1,604	4%
Stonnington (C)	1,513	4%
Greater Dandenong (C)	1,486	4%
Boroondara (C)	884	2%
Frankston (C)	865	2%
Other LGAs	6,216	17%
Total	**36,846***	100%

SOURCE: ABS Census 2016

[3] Source, ABS Census data 2016

*These figures are taken directly from ABS Census Data, which are known to undercount for employment. These figures differ from the figures reported in tables 21 and 22 in the appendix which account for this undercount.

Results for place of residence of workers in nearby LGAs are shown in Table 16, Table 17 and Table 18.

TABLE 16: PLACE OF RESIDENCE OF PEOPLE EMPLOYED IN KINGSTON

LGA of Residence	Employed in Kingston	% employment in Kingston
Kingston (C)	22,088	30%
Casey (C)	8,064	11%
Greater Dandenong (C)	7,040	10%
Frankston (C)	6,307	9%
Bayside (C)	4,760	6%
Glen Eira (C)	4,640	6%
Monash (C)	3,823	5%
Mornington Peninsula (S)	,2363	3%
Knox (C)	2,046	3%
Whitehorse (C)	1,284	2%
Other LGAs	11,068	15%
Total	**73,483**	**100%**

SOURCE: ABS Census 2016

TABLE 17: PLACE OF RESIDENCE OF PEOPLE EMPLOYED IN STONNINGTON

LGA of Residence	Employed in Stonnington	% employment in Stonnington
Stonnington (C)	12,585	23%
Glen Eira (C)	4,701	9%
Monash (C)	3,898	7%
Boroondara (C)	3,851	7%
Port Phillip (C)	3,061	6%
Kingston (C)	2,063	4%
Casey (C)	2,055	4%
Whitehorse (C)	1,942	4%
Yarra (C)	1,780	3%
Bayside (C)	1,774	3%
Other LGAs	16,966	31%
Total	**54,676**	**100%**

SOURCE: ABS Census 2016

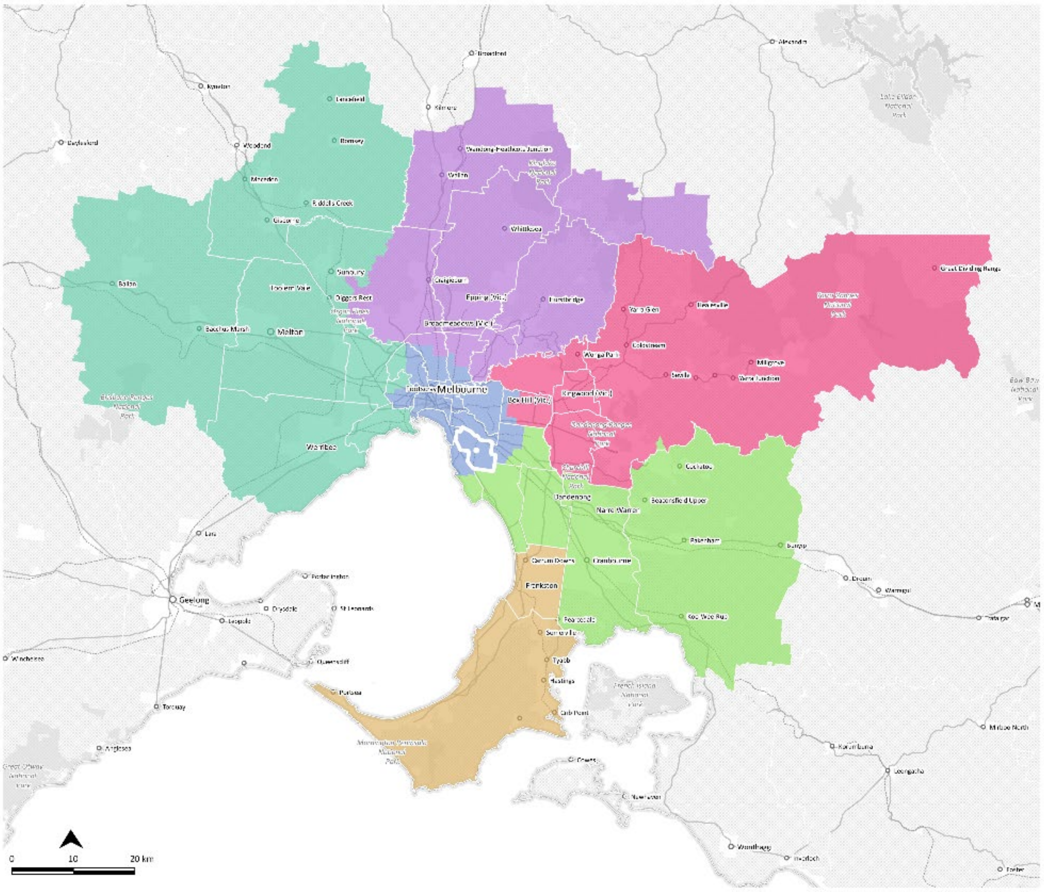
TABLE 18: PLACE OF RESIDENCE OF PEOPLE EMPLOYED IN BAYSIDE

LGA of Residence	Employed in Bayside	% employment in Bayside
Bayside (C)	11,950	41%
Kingston (C)	4,296	15%
Glen Eira (C)	2,745	9%

Frankston (C)	1,234	4%
Port Phillip (C)	1,214	4%
Casey (C)	1,123	4%
Greater Dandenong (C)	1,078	4%
Monash (C)	950	3%
Stonnington (C)	692	2%
Mornington Peninsula (S)	492	2%
Other LGAs	3,686	13%
Total	**29,460**	**100%**

SOURCE: ABS Census 2016

FIGURE 17: MELBOURNE'S FUNCTIONAL ECONOMIC REGIONS (2016)



Source: SGS Planning and Economics 2016

While the number of residents who work in the City of Melbourne are the largest portion of the employed population, the portion of residents employed locally are a close successor as shown in Table 6. Melbourne CBD and its municipality more broadly continues to serve an important regional role in providing employment opportunities for Metropolitan Melbourne. (Refer to Figure 17 which illustrates Melbourne's functional economic regions).

A relatively high portion of jobs located in Glen Eira are filled by local residents and those of neighbouring LGAs. However, only a small proportion of local residents actually work in Glen Eira indicating that the existing pool of jobs is small. Glen Eira experiences an unemployment rate of +3.93 (March 2018 Quarter) which is significantly lower than that of Greater Melbourne at +5.97 (Profile id 2018).

TABLE 19: PLACE OF WORK OF RESIDENTS

LGA of Employment	Number of Glen Eira residents	% of Glen Eira residents
Melbourne (C)	17,218	26%
Glen Eira (C)	14,793	22%
Port Phillip (C)	5,109	8%
Monash (C)	4,837	7%
Stonnington (C)	4,701	7%
Kingston (C)	4,640	7%
Bayside (C)	2,745	4%
Yarra (C)	,2480	4%
Boroondara (C)	,2226	3%
Greater Dandenong (C)	1,906	3%
Other LGAs	6,035	9%
Total	66,690	100%

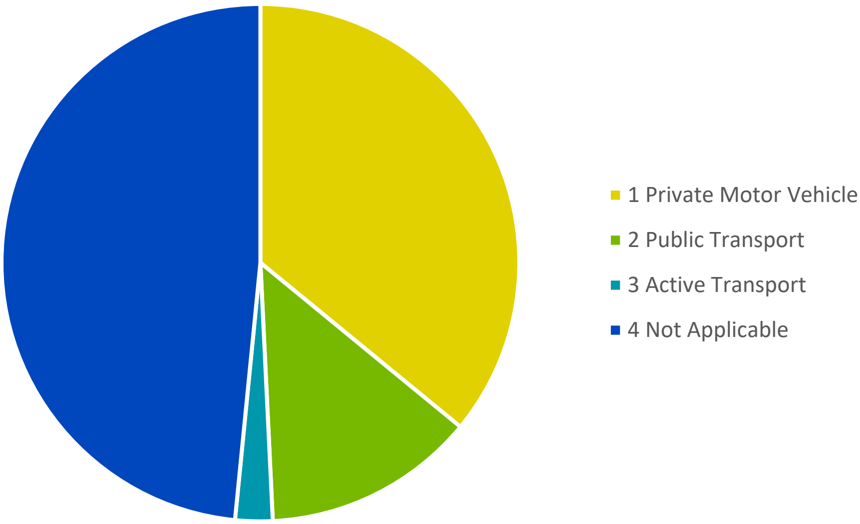
SOURCE: ABS Census 2016

TABLE 20: JOURNEY TO WORK

No	Method of Travel to Work	Glen Eira Residents
1	Private Motor Vehicle	41,374
2	Public Transport	15,301
3	Active Transport	2,684
4	Not Applicable	55,752
	Total	115,107

Source: ABS Census 2016

FIGURE 18: TRAVEL TO WORK



Source: ABS Census 2016

Projected population and housing growth

TABLE 21: TOTAL FORECAST POPULATION

Locality	2016	2021	2026	2031	2036
City of Glen Eira	149012	159152	167052	173823	180626
Bentleigh	17828	18774	19515	20160	20858
Bentleigh East	28813	30281	31638	32591	33610
Carnegie	18228	20050	21254	22279	23266
Caulfield	5920	6221	6401	6594	6792
Caulfield North - Caulfield East	17849	20697	23285	25730	28061
Caulfield South	12536	12858	13128	13479	13852
Elsternwick - Gardenvale	12061	12825	13477	14007	14390
Glen Huntly	5318	5829	6065	6193	6322
McKinnon	6605	7042	7254	7376	7566
Murrumbeena	10647	11140	11427	11621	11823
Ormond	8850	9059	9234	9392	9614
St Kilda East	4358	4377	4372	4400	4471

Source: ID Forecasting

TABLE 22: FORECAST AVERAGE HOUSEHOLD SIZE

Locality	2016	2021	2026	2031	2036
City of Glen Eira	2.53	2.5	2.47	2.45	2.43
Bentleigh	2.53	2.51	2.47	2.45	2.43
Bentleigh East	2.76	2.72	2.69	2.65	2.62
Carnegie	2.32	2.31	2.29	2.27	2.25
Caulfield	2.5	2.5	2.49	2.48	2.47
Caulfield North - Caulfield East	2.47	2.45	2.43	2.42	2.41
Caulfield South	2.58	2.54	2.51	2.49	2.48
Elsternwick - Gardenvale	2.36	2.34	2.32	2.31	2.3
Glen Huntly	2.26	2.3	2.29	2.27	2.25
McKinnon	2.89	2.85	2.78	2.71	2.68
Murrumbeena	2.41	2.39	2.38	2.37	2.36
Ormond	2.53	2.49	2.45	2.42	2.41
St Kilda East	2.92	2.82	2.74	2.69	2.66

SOURCE: ID Forecasting

TABLE 23: NUMBER OF DWELLINGS

Locality	2016	2021	2026	2031	2036
City of Glen Eira	60463	65317	69362	72997	76480
Bentleigh	7081	7585	8030	8433	8833
Bentleigh East	10993	11592	12153	12680	13205
Carnegie	7985	8907	9586	10191	10787
Caulfield	2340	2458	2543	2628	2713
Caulfield North - Caulfield East	7419	8649	9765	10800	11775
Caulfield South	5030	5240	5420	5600	5780
Elsternwick - Gardenvale	5210	5614	5971	6261	6463
Glen Huntly	2443	2633	2751	2836	2921
McKinnon	2298	2489	2637	2747	2857
Murrumbeena	4533	4801	4967	5112	5257
Ormond	3575	3738	3893	4028	4173
St Kilda East	1557	1612	1647	1682	1717

SOURCE: ID Forecasting

APPENDIX D: EXISTING EMPLOYMENT BY INDUSTRY

Table 21, 22 and 23 summarise SGS developed SAM forecasts for employment by industry for 2016, 2031 and 2036 by suburb in Glen Eira. The SGS forecasts account for the undercount that is present in the ABS Census 2016. This explains the discrepancy in figures reported using ABS data. SAM forecasts do not factor in the impact of Council's proposed actions on promoting jobs growth. This does not take into account specific planning for commercial and retail floorspace outlined in ACHLE Strategy.

TABLE 24: EMPLOYMENT BY INDUSTRY 2016: SUBURBS

	Agriculture, Forestry and Fishing	Mining	Manufacturing	Electricity, Gas, Water and Waste	Construction,	Wholesale Trade	Retail Trade	Accommodation and Food Services	Transport, Postal and Warehousing	Information Media and	Financial and Insurance Services	Rental, Hiring and Real Estate Services	Professional, Scientific and Technical Services	Administrative and Support Services	Public Administration and	Education and Training	Health Care and Social Assistance	Arts and Recreation Services	Other Services	Total
Bentleigh	3	-	91	11	526	49	1,277	409	82	25	401	159	492	210	456	330	780	51	296	5,650
Bentleigh East	11	-	834	5	831	552	741	458	195	215	94	91	699	427	134	763	1,892	117	365	8,423
Carnegie	-	-	109	8	379	92	676	343	72	28	81	157	462	122	167	158	735	54	177	3,820
Caulfield	5	-	31	-	194	43	164	87	277	12	38	47	221	88	688	118	2,000	151	125	4,290
Caulfield North - Caulfield East	11	7	60	20	591	57	359	370	122	28	172	238	856	479	80	1,969	791	343	262	6,816
Caulfield South	8	-	63	-	240	50	181	122	48	33	72	61	392	83	28	312	636	50	169	2,547
Elsternwick - Gardenvale	5	-	97	51	390	73	1,001	680	41	437	194	120	524	172	53	656	778	113	306	5,690
Glen Huntly	-	-	13	-	91	6	234	83	22	2	15	23	114	32	30	27	130	4	68	894
McKinnon	1	-	20	-	186	16	34	87	34	13	21	17	175	44	6	211	242	26	60	1,194
Murrumbeena	-	-	99	14	248	49	133	76	39	10	37	18	159	55	8	169	157	37	81	1,388
Ormond	-	-	29	-	187	22	216	283	51	18	27	17	217	133	14	327	267	34	85	1,928
St Kilda East	-	1	15	2	181	43	76	137	-	32	30	39	222	78	57	955	464	82	106	2,520
total	**44**	**8**	**1,453**	**109**	**3,955**	**1,018**	**5,034**	**3,035**	**984**	**825**	**1,166**	**962**	**4,381**	**1,886**	**1,680**	**5,789**	**8,709**	**994**	**2,019**	**44,053**

Source: SGS SAM Model Employment forecasting 2018. NB. that the SGS forecasts account for the undercount that is present in the ABS Census 2016. This explains the discrepancy in figures reported using ABS data.

TABLE 25: EMPLOYMENT BY INDUSTRY 2031: SUBURBS

	Agriculture, Forestry and Fishing	Mining	Manufacturing	Electricity, Gas, Water and Waste Services	Construction,	Wholesale Trade	Retail Trade	Accommodation and Food Services	Transport, Postal and Warehousing	Information Media and Telecommunications	Financial and Insurance Services	Rental, Hiring and Real Estate Services	Professional, Scientific and Technical Services	Administrative and Support Services	Public Administration and Safety	Education and Training	Health Care and Social Assistance	Arts and Recreation Services	Other Services	Total
Bentleigh	3	-	72	13	676	76	1,599	486	86	30	571	185	869	286	628	473	1,166	61	323	7,605
Bentleigh East	9	-	431	6	1,112	346	1,192	739	181	249	194	167	1,324	647	195	1,456	3,572	162	388	12,372
Carnegie	-	-	86	10	488	142	846	408	75	33	116	182	816	166	230	226	1,099	65	193	5,181
Caulfield	4	-	25	-	250	66	205	103	288	14	54	55	390	120	948	169	2,989	182	137	5,999
Caulfield North - Caulfield East	9	6	48	23	761	89	450	439	127	33	246	276	1,511	652	110	2,821	1,182	413	286	9,482
Caulfield South	6	-	50	-	309	77	227	145	50	39	103	70	692	113	38	533	950	61	184	3,648
Elsternwick - Gardenvale	4	-	77	61	501	113	1,254	808	42	521	276	139	925	234	73	940	1,163	135	334	7,600
Glen Huntly	-	-	10	-	118	9	293	98	23	2	22	26	202	44	42	39	195	5	74	1,200
McKinnon	1	-	16	-	239	25	43	104	35	16	30	19	309	61	9	303	361	31	65	1,666
Murrumbeena	-	-	78	17	319	76	166	90	41	12	53	20	280	75	11	243	234	45	88	1,848
Ormond	-	-	23	-	241	34	270	336	53	21	39	20	383	181	20	468	399	41	93	2,623
St Kilda East	-	1	17	1	240	44	126	162	-	43	42	45	408	109	101	1,537	853	87	105	3,920
total	36	7	921	129	5,130	1,066	6,569	3,802	1,000	977	1,723	1,178	7,826	2,633	2,324	8,743	13,763	1,217	2,194	61,238

Source: SGS SAM Model Employment forecasting 2018

TABLE 26: EMPLOYMENT BY INDUSTRY 2036: SUBURBS

	Agriculture, Forestry and Fishing	Mining	Manufacturing	Electricity, Gas, Water and Waste Services	Construction,	Wholesale Trade	Retail Trade	Accommodation and Food Services	Transport, Postal and Warehousing	Information Media and Telecommunications	Financial and Insurance Services	Rental, Hiring and Real Estate Services	Professional, Scientific and Technical Services	Administrative and Support Services	Public Administration and Safety	Education and Training	Health Care and Social Assistance	Arts and Recreation Services	Other Services	Total
Bentleigh	3	-	68	13	713	82	1,714	505	88	31	621	186	963	312	679	491	1,321	63	323	8,177
Bentleigh East	9	-	399	6	1,190	319	1,355	798	181	260	230	187	1,541	716	213	1,740	4,166	180	392	13,882
Carnegie	-	-	82	10	515	152	907	423	77	34	126	183	905	181	249	235	1,244	67	193	5,583
Caulfield	4	-	24	-	264	71	220	107	296	15	59	55	432	131	1,024	176	3,384	188	137	6,586
Caulfield North - Caulfield East	9	5	45	23	802	95	482	456	131	34	267	278	1,675	712	119	2,933	1,338	427	286	10,118
Caulfield South	6	-	47	-	326	83	243	151	51	41	112	71	767	123	42	582	1,075	63	184	3,967
Elsternwick - Gardenvale	4	-	73	62	528	121	1,343	839	43	542	300	140	1,025	255	78	978	1,317	140	334	8,123
Glen Huntly	-	-	10	-	124	9	314	102	23	2	24	27	224	48	45	41	221	5	74	1,291
McKinnon	1	-	15	-	252	27	46	108	36	16	33	19	342	66	9	315	409	32	65	1,792
Murrumbeena	-	-	75	17	336	81	178	93	42	12	58	20	311	81	12	252	265	46	88	1,969
Ormond	-	-	22	-	254	37	290	349	54	22	43	20	425	198	21	487	451	43	93	2,807
St Kilda East	-	1	20	1	254	47	147	164	-	45	45	45	457	120	113	1,616	1,027	83	97	4,282
total	36	6	866	131	5,428	1,091	7,117	3,975	1,024	1,017	1,892	1,203	8,748	2,884	2,512	9,343	15,703	1,271	2,198	66,444

Source: SGS SAM Model Employment forecasting 2018

APPENDIX E: AVAILABLE LAND

These exclusions are based on criteria and assumptions documented in . The source and impact of each assumption are briefly presented in this chapter, followed by the findings of the available land analysis.

TABLE 27: SUMMARY OF AVAILABLE ASSUMPTIONS

Criteria	Data Source	Method	NRZ1	GRZ1-4	RGZ1-2	PDZ2	C1Z	C2Z	MUZ1-3	PUZ1-5
a) Strata	Council rates data	Land use includes: ▪ Strata Unit or Flat ▪ Single Unit/Villa Unit/Townhouse ▪ Residential Investment Flats ▪ Retirement Village Unit ▪ Retirement Village Complex ▪ Granny Flat/Studio ▪ Individual Flat	x	x	x	x	x		x	
	HDD data	4+ dwellings	x	x	x	x	x		x	x
b) 'Shared' lots	Council property GIS layer	SGS audit of driveways/ shared private areas	x	x	x	x	x		x	
c) Heritage	Council heritage significance GIS layer	Includes: ▪ Contributory ▪ Significant ▪ Victorian Heritage Register	x	x	x					
d) Infrastructure	Council community services and parks layer	All facilities	x	x	x	x	x	x	x	x
e) Small lots	Council zoning GIS layer and HDD layer	Lot size < 600sqm in NRZ	x							
		Lot size < 300 sqm in GRZ, RGZ, PDZ		x	x					
		Lot size < 150 sqm in MUZ, C1Z, C2Z				x	x	x	x	
f) Recent development	HDD (2005-2016) projects layer	Total project yield > 0	x	x	x	x	x		x	
	Council rates data	Construction year > 2000	x	x	x	x	x	x	x	x

x = Exclusions; (grey) = Not applicable

Source: SGS Economics and Planning
Note: Other zones are considered unavailable unless there is a structure plan in place

Available land assumptions

The impacts of each assumption is presented below.

Strata and multiple ownership shared lots

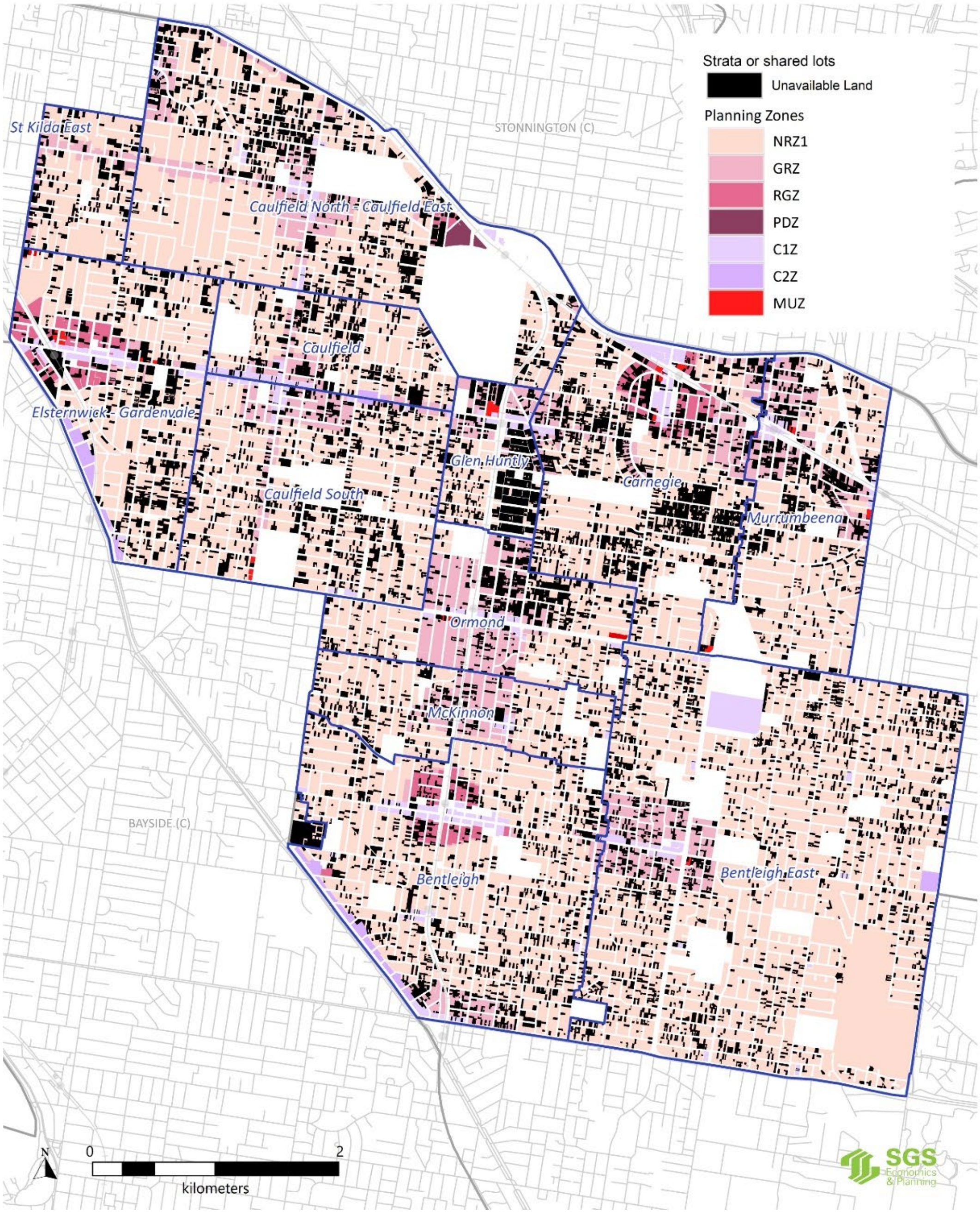
Locations where there are multiple property owners (i.e. strata title) or where the original subdivision pattern has been further subdivided (i.e. shared lots) are likely to significantly limit the development potential of these sites. These have been identified and excluded from available land.

Strata lots were identified using the property rates dataset provided by Council. Lots with land uses such as strata unit or flat, single unit, villa unit, townhouse, residential investment flats, retirement village units and complexes, granny flats or studios, and individual flats were excluded.

Shared lots were identified separately. These include unit, townhouse and village developments with common driveways likely controlled by multiple land owners. These 'shared lots' were identified through data queries of the property rates dataset and through a visual assessment of the cadastre.

 illustrates the strata and multiple ownership lots identified (highlighted in black). Shared and multiple ownership lots are found in all parts of the municipality, with significant clusters occurring in the suburb of Carnegie.

FIGURE 19. STRATA LOTS AND LOTS WITH MULTIPLE OWNERSHIPS



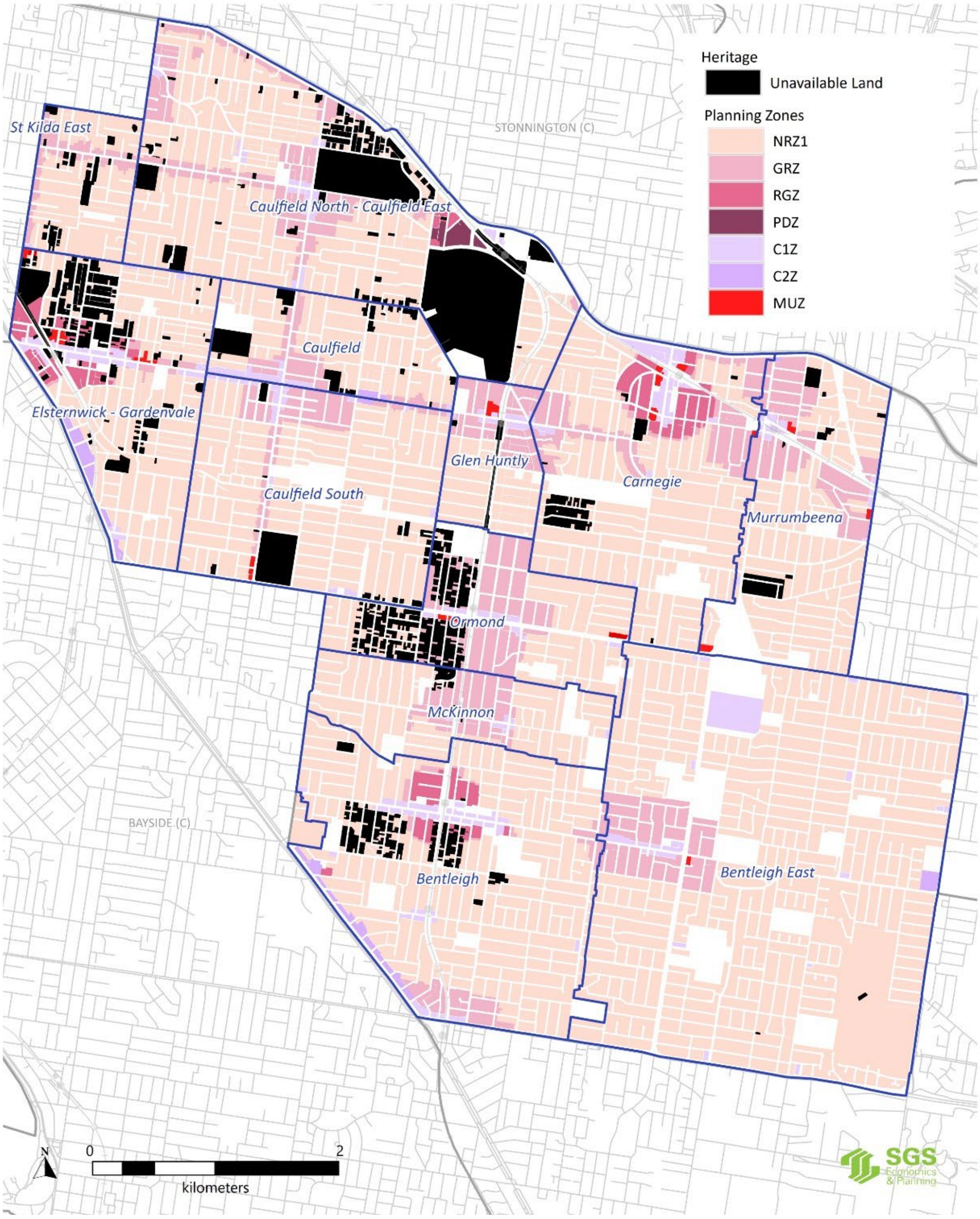
Source: SGS Economics and Planning, 2018

Significant heritage sites

Significant heritage sites have been identified using the heritage layer provided by Council. Given the heritage value of these properties, they typically provide limited redevelopment potential.

below illustrates the locations of heritage sites highlighted in black. This only applies to heritage sites identified as 'Contributory', 'Significant', or 'Victorian Heritage Register'. These unavailable lots are largely in Elsternwick Activity Centre, Ripponlea Activity Centre, the western section of Ormond Activity Centre, the southern section of Bentleigh Activity Centre, and parts of Caulfield Park Activity Centre.

FIGURE 20. HERITAGE



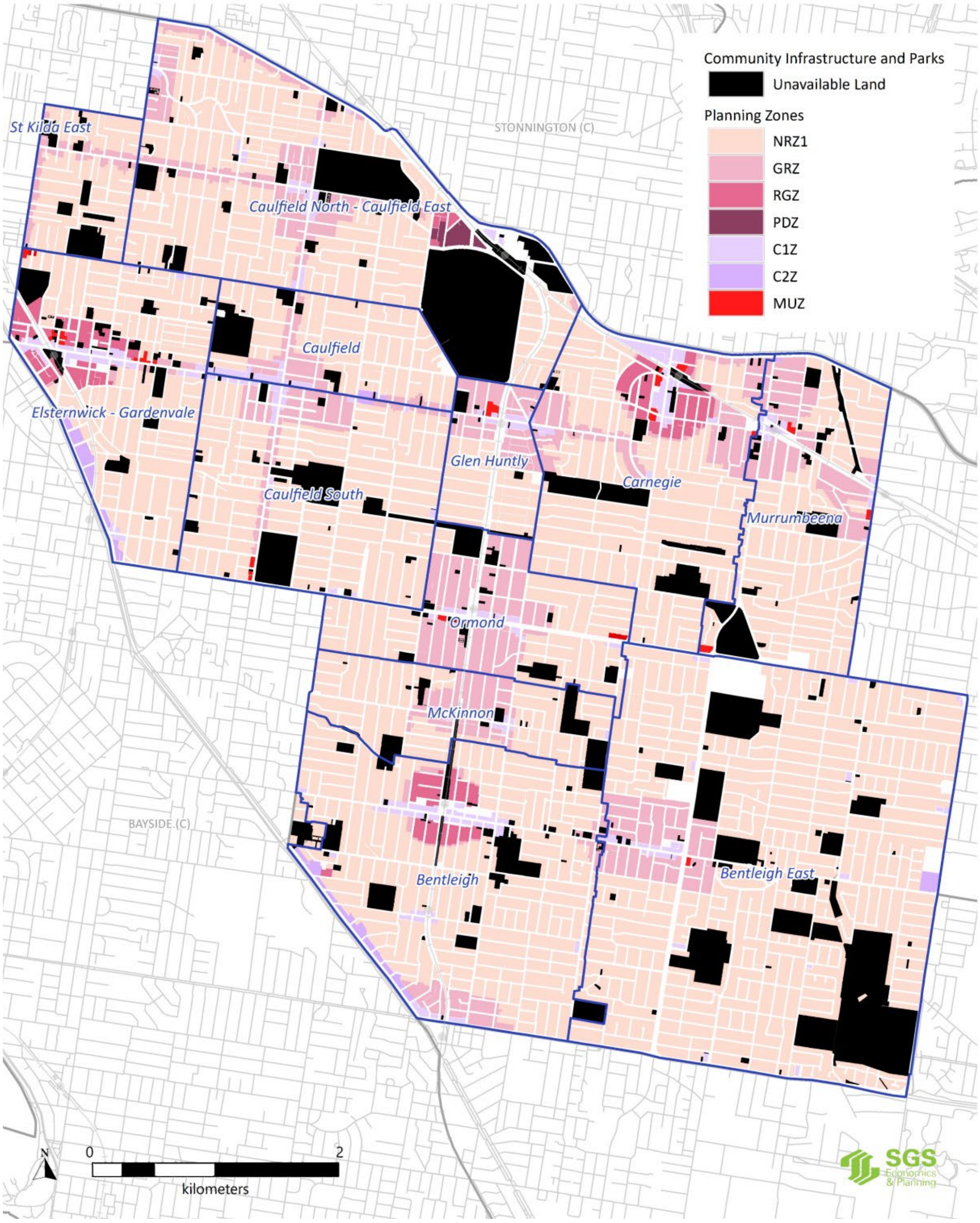
Source: SGS Economics and Planning, 2018

Community Infrastructure and Key Assets

These sites, located on both residential and commercial land, serve as community infrastructure for the public and are not considered suitable for new housing development. Types of land use include education centres, hospitals, sports facilities, hospitals, place of worship, police stations.

The indoor sports centre on 1 Newham Grove in Ormond has been marked available due to recently being included in the Comprehensive Development Zone.

FIGURE 21. COMMUNITY INFRASTRUCTURE AND PARKS



Source: SGS Economics and Planning, 2018

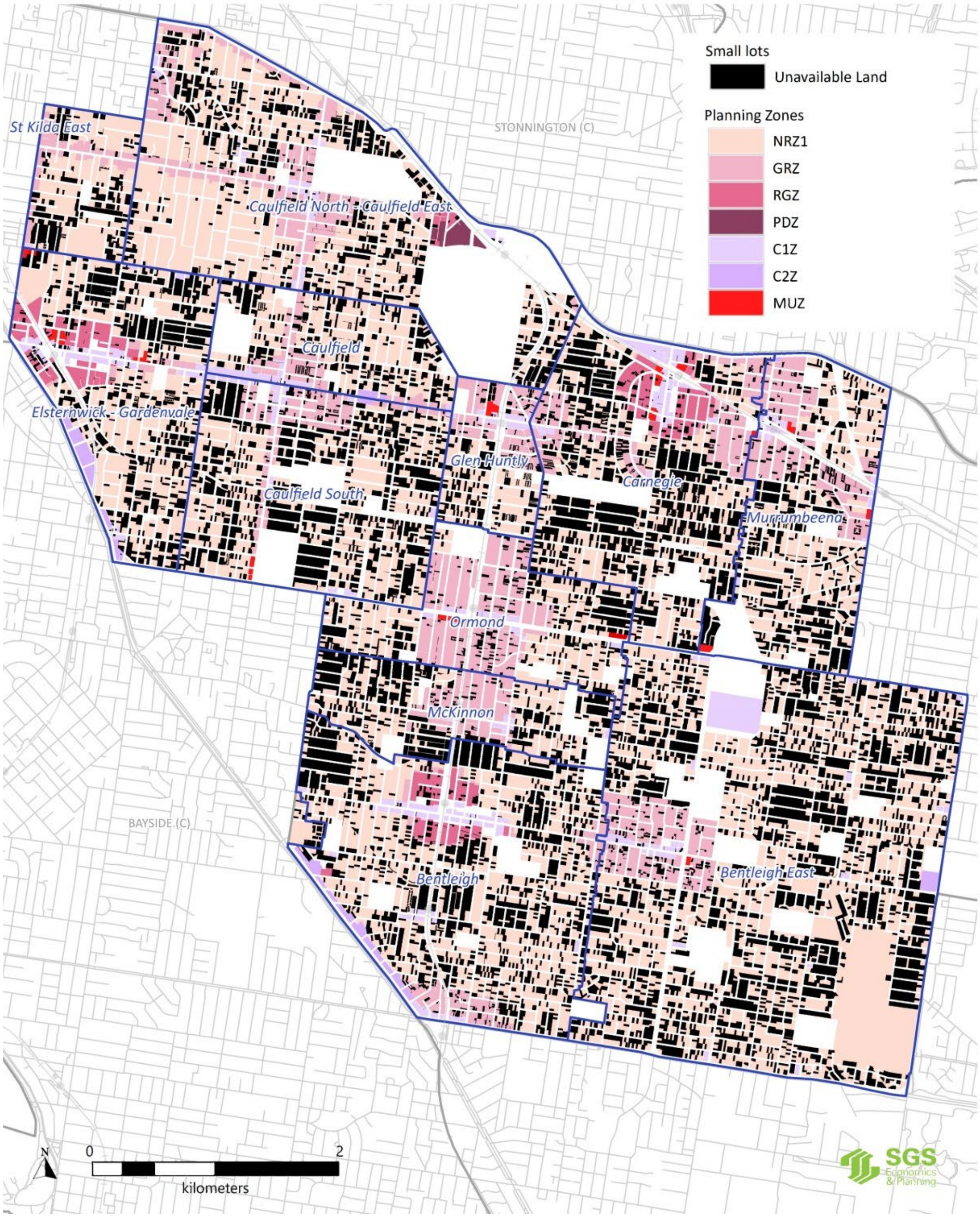
Small lots not available for subdivision or more intensive development

Small lots have limited development potential. Lots less than 600 metres in NRZ1, lots less than 300 square metres in all other residential zones, and lots less than 150 square metres in MUZ and C1Z land have been considered unavailable for subdivision or more intensive development.

Odd sized lots such as driveways, shared private space, and other non-developable areas were also identified and removed from available land.

The image below illustrates the distribution of small lots identified (highlighted in black). These small lots fall within most parts of the municipality but are particularly prevalent in the suburb of Carnegie.

FIGURE 22. SMALL LOTS

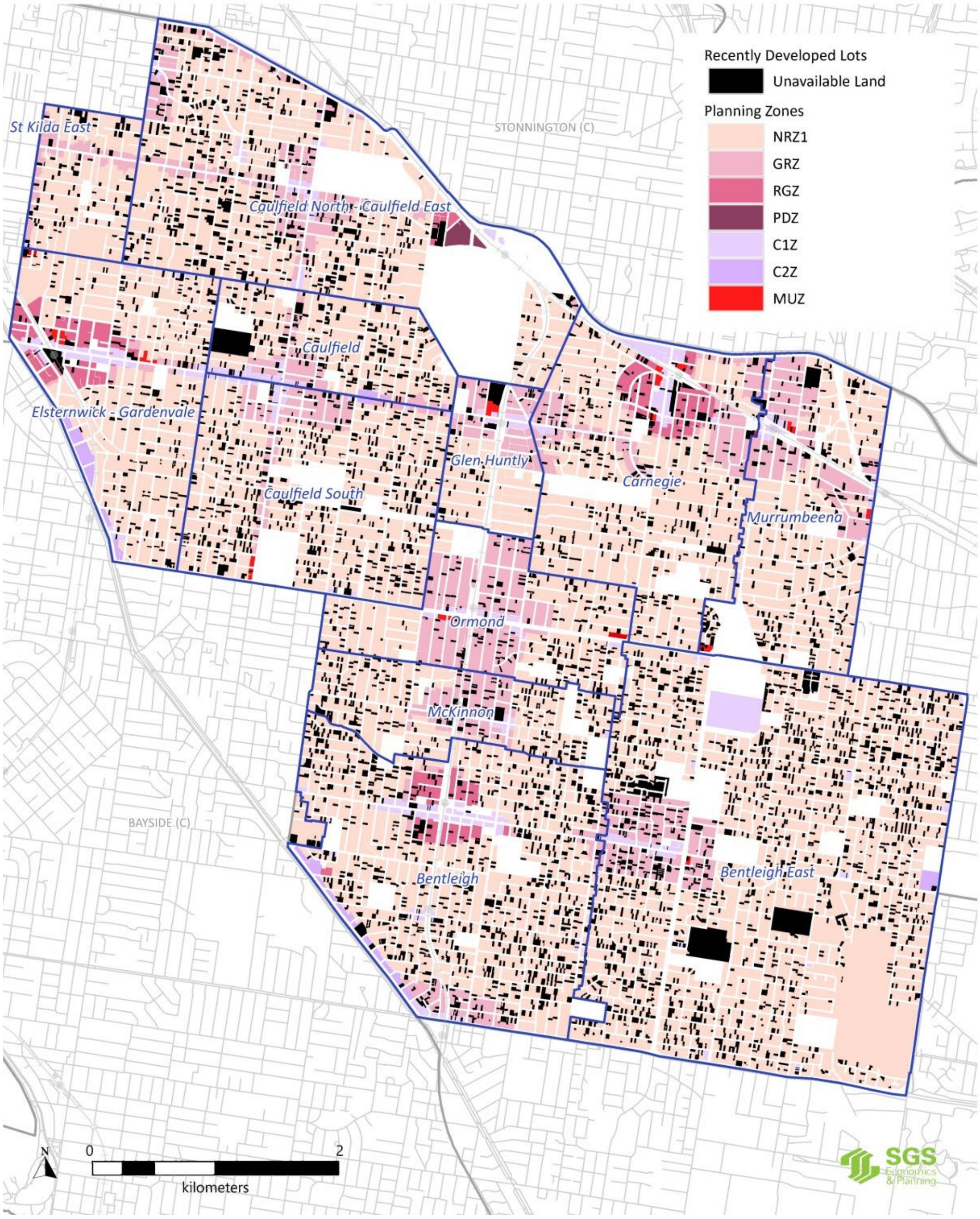


Source: SGS Economics and Planning, 2018

Recently completed buildings

Buildings that were recently completed are unlikely to be redeveloped and have been excluded from the capacity analysis. This applies to all residential land completed between 2005-2016 (supplied by DELWP – HDD projects layer).

FIGURE 23. RECENT DEVELOPMENT



Source: SGS Economics and Planning, 2018

Available Land (HA)

The image provides a breakdown of land (hectares) that is unavailable by the specific criteria. It should be noted that land parcels can be deemed unavailable based on multiple criterias and therefore the individual numbers in this table are not additive.

TABLE 28: SUMMARY OF AVAILABLE LAND AND CONSTRAINTS BY PLANNING ZONES (HA)

Criteria		Data source / method	NRZ1	GRZLS	GRZMS	RGZ1	RGZ2	PDZ2	C1Z [1]	C2Z	MUZ	PUZ	IN1Z [2]	CDZ1	Total
		Total land area	2,144	223	133	58	1	4	88	17	8	14	6	1	2,699
Strata	Council rates data	Lots under relevant layer	397.2	61.6	38.0	12.8	0.0	0.0	4.5	0.0	2.0	0.4	0.0	0.0	517.3
	HDD data	4+ dwellings	91.1	25.1	29.9	11.6	0.0	0.6	5.4	0.0	1.6	0.7	0.0	0.0	167.6
Shared lots	HDD layer	SGS audit	28.9	5.1	2.9	0.5	0.0	0.0	0.4	0.0	0.1	-	0.0	0.0	37.9
Heritage	Council GIS layer	Lots under layer.	109.8	19.8	2.9	9.8	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	144.6
Infrastructure	Council feature of interest GIS layer	Community Infrastructure	109.6	5.0	16.4	3.2	0.0	0.0	23.4	1.2	1.9	7.1	0.0	0.1	156.2
		Parks	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	2.6
		Total	111.6	5.0	16.4	3.2	0.0	0.0	23.4	1.2	1.9	7.8	0.0	0.1	158.9
Small lots	HDD layer	lot size < 600 in NRZ lot size < 300 in GRZ, RGZ	894.7	36.5	10.6	7.8	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	949.5
		lot size < 150 in MUZ, C1Z and C2Z	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.2	-	0.0	0.0	2.8
Recent Developments	HDD (2005-2016) projects layer	Total project yield > 0	171.4	18.3	13.1	5.0	0.0	0.6	4.6	0.0	0.6	-	0.0	0.0	214.4
	Council rates data	Construction year > 2000	273.9	28.5	14.6	5.0	0.0	0.0	4.8	1.2	1.3	1.5	0.0	0.0	332.4
		Vacant Land	22	4	3	3	-	-	1	-	1	-	-	-	34.4
		Total available land	**842**	**102**	**57**	**27**	**1**	**4**	**70**	**15**	6	9	**11**	1	1,144

Source: SGS Economics and Planning

Note: Figures are rounded and approximate only

[1] [2] Includes East Village Precinct

Table 18, shows the distribution of available land by .id small area. The majority of available land is in the suburbs of Bentleigh East (295 ha), Bentleigh (151 ha), and Caulfield North – Caulfield East (151 ha).

TABLE 29: SUMMARY OF AVAILABLE LAND BY SUBURB

.id small area (suburb)	Total Dwellings	Land (HA)	Total Available Land (HA)	Percentage of Available Land
Bentleigh	7,093	350	155	44%
Bentleigh East	10,988	661	295	45%
Carnegie	7,978	264	97	37%
Caulfield	2,332	103	47	46%
Caulfield North - Caulfield East	8,389	319	152	48%
Caulfield South	4,948	224	87	39%
Elsternwick - Gardenvale	5,498	212	79	37%
Glen Huntly	2,410	61	21	34%
McKinnon	2,251	108	46	43%
Murrumbeena	4,484	176	82	47%
Ormond	3,523	147	54	37%
St Kilda East	1,523	74	28	38%
Total	**61,387**	**2,698**	**1,143**	**42%**

Source: SGS Economics and Planning, 2018

Note: (1) Includes East Village Precinct

APPENDIX F: YIELD ASSUMPTIONS

Assumptions for Bentleigh, Carnegie and Elsternwick Structure Planned Activity Centres

A built form model has been developed to estimate the ‘potential yield’ of each building type. This model applies generalised built form-based assumptions to the available land in each precinct to create an estimate of potential useable floorspace. This will provide a clear basis for understanding the implications of the Quality Design Guidelines for economic growth and residential development. This includes consideration of:

- Site coverage – how much of the land a building would likely cover. This excludes whole of building setbacks, open space requirements and other uses such as car parking.
- Building efficiency – how much of the building footprint is useable. This excludes floorspace used by lifts, stairwells, foyers and other common areas.
- Building height and setbacks - the number of stories and discounts for upper level setbacks from the street or neighbouring buildings

This methodology provides a transparent approach to estimating total capacity with a clear connection to building heights and built form considerations. It also enables more robust scenarios to be rapidly tested in the future. For example, adjustments to building heights by precinct.

The activity centre yield assumptions for site density shown in were calculated based on:

- Preferred height controls for each building type
- Site cover of 85%
- Building efficiency of 70%
- Average dwelling size of 75 square metres.

These assumptions are used to approximate dwelling density, and employment floorspace. This then is applied to the site area to determine approximate yields for dwellings and employment.

TABLE 30: ACTIVITY CENTRE YIELD ASSUMPTIONS – COMMERCIAL/MIXED USE AREAS

Building Type	Description in Guidelines	Areas with Capacity by Planning Zone (SGS Findings)	Preferred height (storeys)	Proposed land use mix and setback (SGS assumptions)	Dwelling Yield Assumptions	Employment yield (per 1000sqm developable land)		Residential Building Type Mix Assumption
						Retail	**Commercial**	
Shop top standard (ST5)	▪ 5 storeys including a consistent 2 storey street wall/podium ▪ Ground floor shopfront ▪ Upper floors contain mix of employment and residential ▪ Located on commercial 1 or mixed-use zone land ▪ Land use mix provide a range of employment and housing opportunities. Commercial space is prioritised	All within C1Z	5	▪ 1 floor retail ▪ 1 floor commercial ▪ 3 floor residential ▪ 20% setback on top 3 levels ▪ *Assumption that upper floors contain an equal mix of commercial and residential development*	200 dph	600 sqm	600 sqm	100% Apartments
Shop top standard (ST4)	▪ 4 storeys including a consistent 2 storey street wall/podium ▪ Ground floor shopfront ▪ Upper floors contain mix of employment and residential ▪ Located on commercial 1 or mixed-use zone land ▪ Land use mix provide a range of employment and housing opportunities. Commercial space is prioritised	All within C1Z	4	▪ 1 floor retail ▪ 1 floor commercial ▪ 2 floors residential ▪ 20% setback on top 2 levels ▪ *Assumption that upper floors contain an equal mix of commercial and residential development*	100 dph	600 sqm	600 sqm	100% Apartments
Shop top standard (ST3)	▪ 3 storeys including a consistent 2 storey street wall/podium ▪ Ground floor shopfront ▪ Upper floors contain mix of employment and residential ▪ Located on commercial 1 or mixed-use zone land ▪ Land use mix provide a range of employment and housing opportunities. Commercial space is prioritised	Mostly within C1Z, some in MUZ1	3	▪ 1 floor retail ▪ 2 floor residential ▪ 20% setback on top 1 level ▪ *Assumption that upper floors contain an equal mix of commercial and residential development*	100 dph	600 sqm	-	100% Apartments

Shop top heritage (ST4)	▪ Located on commercial 1 or mixed-use zone land with Heritage Overlay ▪ Upper floors setback and designed recessively to minimise visibility from the street ▪ Land use mix provide a range of employment and housing opportunities	Almost all in C1Z, small amount in MUZ1	4	▪ 1 floor retail ▪ 1 floor commercial ▪ 2 floors residential ▪ 60% setback on top level and 20% setback on 3rd level ▪ *Assumption that upper floors contain an equal mix of commercial and residential development*	100 dph	600 sqm	600 sqm	100% Apartments
Strategic Site A	▪ Preferred height of 6 storeys, including a 3 storey street wall/podium. Allow up to 8 storeys if providing a significant community benefit ▪ Located on commercial 1 or mixed-use zone land in a Health, Education and Innovation Precinct with Urban Renewal; Health, Education and Innovation Precinct; or Major Activity Centre with Urban Renewal. ▪ Commercial space is prioritised	Mostly in RGZ1, some in C1Z and MUZ1	6	▪ 1 floor retail ▪ 2 floors commercial ▪ 3 floors residential ▪ 20% setback on top 5 levels ▪ *Assumption that preferred maximum height is applied (i.e. not the upper maximum)*	200 dph	500 sqm	1000 sqm	100% Apartments
Strategic Site B	▪ Preferred height of 5 storeys, including a 2 storey street wall/podium. ▪ Located on commercial 1 or mixed-use zone land in a Health, Education and Innovation Precinct with Urban Renewal; Health, Education and Innovation Precinct; or Major Activity Centre with Urban Renewal.	Mostly in PUZ, some in C1Z, RGZ1, and small amount in GRZ	5	▪ 1 floor retail ▪ 2 floors commercial ▪ 2 floors residential ▪ 20% setback on top 2 levels	100 dph	600 sqm	1200 sqm	100% Apartments
Urban Renewal (ST8)	▪ Preferred height of 8 storeys including a 3 storey street wall/podium. Allow up to 12 storeys if providing a significant community benefit ▪ Located within Health, Education and Innovation Precinct with Urban	Mostly in C1Z and C2Z, small amount in RGZ	8	▪ 1 floor retail ▪ 2 floors commercial ▪ 5 floors residential ▪ 20% setback on top 5 levels ▪ *Assumption that preferred maximum height is applied (i.e. not the upper maximum)*	300 dph	600 sqm	1200 sqm	100% Apartments

	Renewal or Major Activity Centre with Urban Renewal							
Urban Renewal (ST6)	▪ Preferred height of 6 storeys including a 3 storey street wall/podium. Allow up to 12 storeys if providing a significant community benefit ▪ Located within Health, Education and Innovation Precinct with Urban Renewal or Major Activity Centre with Urban Renewal	Mostly in C1Z, some in RGZ and MUZ1	6	▪ 1 floor retail ▪ 2 floors commercial ▪ 3 floors residential ▪ 20% setback on top 3 levels ▪ *Assumption that preferred maximum height is applied (i.e. not the upper maximum)*	200 dph	600 sqm	1200 sqm	100% Apartments
Urban Renewal (ST4)	▪ Preferred height of 4 storeys including a 2 storey street wall/podium. Allow up to 12 storeys if providing a significant community benefit ▪ Located within Health, Education and Innovation Precinct with Urban Renewal or Major Activity Centre with Urban Renewal	All in C2Z	4	▪ 1 floor retail ▪ 1 floors commercial ▪ 2 floors residential ▪ 20% setback on top 1 level ▪ *Assumption that preferred maximum height is applied (i.e. not the upper maximum)*	200 dph	600 sqm	600 sqm	100% Apartments

Source: SGS Economics and Planning, 2018; City of Glen Eira, 2018

Note: Smaller medical centres are included in ‘other commercial’.

Residential Areas

The City of Glen Eira's Quality Design Guidelines for Residential Areas provides clarity on Council's expectations for new developments in residential areas in activity centres. The Guidelines propose 6 building types that have been applied to the Structure plan areas for Bentleigh, Elsternwick and Carnegie: Heritage/Character Areas, Minimal Change Areas, Garden Townhouse, Townhouse / Apartment Mix, Garden Apartments and Urban Apartments. These will be introduced with new zones or policy controls that are different from existing outcomes as indicated below in .

TABLE 31: ACTIVITY CENTRE YIELD ASSUMPTIONS – RESIDENTIAL AREAS

Building Type	Description in Guidelines	Existing areas with Capacity by Planning Zone (SGS Findings)	Preferred height (storeys)	Proposed land use mix and setback (SGS assumptions)	Dwelling Yield Assumptions	Employment yield (per 1000sqm developable land)		Building Type Mix Assumption
						Retail (sqm)	**Commercial (sqm)**	
Heritage and Character Areas	▪ **Indicative zone: NRZ** ▪ Designed in accordance with the Glen Eira Planning Scheme's Heritage Policy or Neighbourhood Character Overlay requirements as relevant.	Mostly within NRZ, some in RGZ	2	2 floors residential	2 dwellings on a lot	-	-	50% Detached housing 50% Townhouses/villas
Minimal Change Areas	▪ **Indicative zone: NRZ** ▪ Detached dwellings or semi-detached townhouses with secluded private open space on the ground floor (minimum 40m2 secluded private open space and a total of 60m2 per dwelling). ▪ Emphasis on protecting the low-scale, detached and landscaped character of local suburban streets. ▪ Designed in accordance with the Glen Eira Planning Scheme's Minimal Change Area Policy.	Majority within NRZ, small amount in GRZ	2	2 floors residential	2 dwellings on a lot	-	-	30% Detached housing 70% Townhouses/villas
Garden Townhouse	▪ **Indicative zone: GRZ.** The overall outcome is much lower in density compared with existing GRZ, due to focus on SPOS, garden requirements and additional character guidance (front, rear and side setbacks). ▪ Town housing in an attached or semidetached format. ▪ Secluded private open space provided on the ground floor (minimum 25m2 per dwelling). ▪ A substantial garden corridor at the front and rear of the site with an emphasis on landscaping to soften the built form.	Evenly split between NRZ and RGZ, with some in GRZ	3	3 floors residential	75 dph	-	-	100% Townhouses/villas

Townhouse / Apartment Mix	▪ **Indicative zone: GRZ and some NRZ.** The overall outcome is similar to existing GRZ1, but with more character guidance. ▪ Town housing options with an apartment mix that delivers a range of housing. ▪ A substantial garden corridor at the front and rear of the site with an emphasis on landscaping to soften the built form.	Mostly within NRZ, some in GRZ and small amount in RGZ	3	3 floors residential	150 dph	-	-	50% Townhouses/villas 50% Apartments
Garden Apartments	▪ **Indicative zone: RGZ.** The overall outcome is similar to existing RGZ1, but with more character guidance. ▪ Apartment building that delivers a range of housing. ▪ A substantial garden corridor at the front and rear of the site with an emphasis on landscaping to soften the built form.	Mostly in RGZ, with small amounts in NRZ	4	4 floors residential	200 dph	-	-	20% Townhouses/villas 80% Apartments
Urban Apartments	▪ **Indicative zone: RGZ or within a bespoke zoning such as part of an urban renewal precinct in the structure plan.** ▪ Apartment building that delivers a range of housing options and embraces its dense urban renewal setting. ▪ Urban landscaped character with minimal street setbacks and greenery in courtyards and balconies fronting the street.	All in RGZ	4	4 floors residential	250 dph	-	-	20% Townhouses/villas 80% Apartments

Source: SGS Economics and Planning, 2018; City of Glen Eira, 2018

Specific Precincts

East Village Emerging health, education and innovation precinct

The East Village precinct is bounded by Cobar Street, North Road, East Boundary Road, and Virginia Park. The draft plan proposes:

- New commercial and office development along East Boundary Road
- Townhouses along the eastern and southern boundaries up to three storeys
- Apartment buildings towards the centre of the precinct up to eight storeys with commercial activity on lower levels
- Transition of the existing industrial and service businesses along North Road to commercial and other employment uses
- New retail precinct along North Drive

The precinct includes land in Industrial 1 Zone (IN1Z), Commercial 1 Zone (C1Z), and Commercial 2 Zone (C2Z). An Employment Assessment[4] found the precinct has an estimated net total capacity for 3,000 dwellings and 26,850m^2 of retail floorspace[5], 57,650m^2 of commercial floorspace[6].

North Road, Ormond, Comprehensive Development Plan (CDZ1)

The North Road, Ormond Comprehensive Development Plan (March 2018) applies to the Ormond Railway Station and associated land nearby. As outlined in Schedule 1 to Clause 37.02, the purpose of the Comprehensive Development Plan is:

- To maximise the substantial redevelopment opportunities and value capture made available through the removal of the level crossing at North Road, Ormond
- To maximise investment opportunities and to contribute to urban development and employment growth

See Table 29 for a summary of the yield assumptions on CDZ1 land

Caulfield Village Development (PDZ2)

The Caulfield Village Development applies to the land generally bounded by Caulfield Racecourse, Kambrook Road, Balaclava Road, and Normanby Road. As outlined in Schedule 2 to Clause 37.06, the objective of the Priority Development Zone is:

- To facilitate the redevelopment of the Caulfield Mixed Use Area for leisure, commerce, living and shopping to form an integrated transit orientated urban village.
- To ensure that the redevelopment of the Caulfield Mixed Use Area is integrated with and complements the redevelopment of the Monash University Caulfield Campus – Western Precinct Development.
- To ensure that the redevelopment of the Caulfield Mixed Use Area provides for links to the racecourse to the south.
- To give effect to the objectives and design principles of the Caulfield Mixed Use Area Incorporated Plan, February 2014.

See Table 29 for a summary of the yield assumptions on PDZ2 land

Caulfield Station Precinct Health, education and innovation precinct with urban renewal

Caulfield Station is currently undergoing Structure Planning, led by the VPA. This process will determine the extent of rezoning, height limits and land use mixes. It is anticipated that there will be considerable residential, retail and commercial floorspace capacity unlocked by the structure planning process, but the extent of this cannot be determined at present.

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[4] JLL (2017) East Bentleigh Village Employment Assessment
[5] 1 floor of mixed use (20,000m^2) was split between retail and commercial floorspace as per Table 2 in JLL (2017) report
[6] 1 floor of mixed use (20,000m^2) was split between retail and commercial floorspace as per Table 2 in JLL (2017) report

Areas outside of structure planned activity centres (Bentleigh, Carnegie, Elsternwick, and East Village)

To determine the potential for additional dwellings in areas outside of structure planned activity centres, zoning controls have been converted into a series of specific assumptions based on both prescriptive controls (e.g. mandatory maximum heights) and the planning objective of each zone.

The following Table 29 provides a brief overview of the relevant key planning controls that will impact the type and scale of residential development in these areas. The recommendations in Structure Plans will over-ride the capacity assumptions where they overlap.

In addition, The City of Glen Eira's Activity Centre, Housing and Local Economy Strategy and Quality Design Guidelines provide clarity on Council's expectations for new developments in activity centres. The yield assumptions in Table 6 account for particular recommendations for C1Z, MUZ and GRZ.

The intent is to model and test outcomes as proposed by Council's current strategic direction.

TABLE 32: SUMMARY OF POTENTIAL YIELD ASSUMPTIONS

Attributes	Total Capacity Assumption	Reasoning
NRZ1		
Available	2 dwellings per lot 30% detached houses 70% townhouse/villas	Predominantly detached single and double storey development. It has a maximum height of 9 metres and a maximum number of 2 storeys. Represents approximately **2 dwellings on a lot** according to current policy and permit trends. Source: Clause 32.09 Neighbourhood Residential Zone
GRZ on main roads		
Available	150 dwellings per hectare 40% townhouse/villas 60% apartments	Accommodates moderate housing growth along key boulevards. It has a 11.5 metre mandatory height limit. A site density of 150 dwellings per hectare has been applied which aligns with the '**walk up apartment**' or '**low rise apartment**' profiles. Source: Clause 32.08 General Residential Zone. See Townhouse and apartment mix building type in Table 8.
GRZ on local streets		
Available	75 dwellings per hectare 30% detached houses 70% townhouse/villas	Accommodates low to moderate housing growth along local residential streets. It has an 11.5 metre mandatory height limit. A site density of 75 dwellings per hectare has been applied which aligns with the '**townhouse**' or '**walk up apartment**' profiles. Source: Clause 32.08 General Residential Zone. See Garden Townhouse building type in Table 7.
RGZ1 – Urban Village		
Available	200 dwellings per hectare 100% apartments	Accommodates a greater density of housing than the GRZ, up to and including four storey buildings. It also provides for a diversity of housing. It has a 14.5 metre mandatory height limit. A site density of 200 dwellings per hectare has been applied which aligns with upper end of the '**low-rise apartment**' profile. Source: Schedule 1 to Clause 32.07 Residential Growth Zone – Urban Village
RGZ2 – Strategic Redevelopment Sites		
Available	200 dwellings per hectare 100% apartments	Accommodates a greater density of housing than the GRZ, up to and including four storey buildings. It also provides for a diversity of housing. It has a 14.5 metre discretionary height limit. A site

		density of 200 dwellings per hectare has been applied which aligns with upper end of the '**low-rise apartment**' profile. Source: Schedule 2 to Clause 32.07 Residential Growth Zone – Strategic Redevelopment Sites
C1Z		
Available	150 dwellings per hectare 100% apartments	600 square metres retail floor space/1000 square metres site area and 600 square metres commercial floor space/1000 square metres site area)
C2Z		
Available	0 dwellings per hectare (dwellings prohibited in this zone)	1,800 sqm commercial employment floorspace Assumes 3 storey
MUZ1 – Glen Eira Mixed Use Areas		
Available	150 dwellings per hectare (assumes ground floor retail and one floor commercial floorspace 100% apartments	Provides housing at higher densities than GRZ and RGZ zones while encouraging development that responds to the existing or preferred neighbourhood character of the area. Includes a mix of retail, residential, and commercial land uses. 600 square metres retail floor space/1000 square metres site area and 600 square metres commercial floor space/1000 square metres site area) Source: Clause 32.04 Mixed Use Zone
MUZ2 – Land at 136-138 & 140-146 Glen Eira Road, Elsternwick		
Available	60 dwellings per hectare 100% apartments (assumes ground floor retail) 600 square metres retail floor space/1000 square metres site area	Accommodates medium density housing of up to 11.5 metres. Source: Schedule 2 of Clause 32.04 Mixed Use Zone
MUZ3 – Land at 641 – 684 North Road, Ormond		
Available	60 dwellings per hectare 100% apartments (assumes ground floor retail) 600 square metres retail floor space/1000 square metres site area	Accommodates medium density housing of up to 11.5 metres Source: Schedule 3 of Clause 32.04 Mixed Use Zone
PDZ2 – Caulfield Village Development		
Available	2000 total dwellings 100% apartments (870 already delivered, approx. 1200 net capacity)	This schedule applies to the land generally bounded by Caulfield Racecourse, Kambrook Road, Balaclava Road, and Normanby Road being the area more particularly described in the Caulfield Mixed Use Area Incorporated Plan, February 2014. Stages 1 to 6 of 10 have been approved with approximately 870 dwellings in total. Current permit activity indicates the land has capacity for 1000 to 1200 additional dwellings in the remaining stages (providing a total of approximately 2000 dwellings across the site including those constructed/under construction within the first two development plans). Source: Caulfield Mixed Use Area Incorporated Plan, February 2014
CDZ1 – North Road, Ormond		

Available	220 total dwellings 650 sqm commercial floor space 6900 sqm retail floor space (e.g. supermarket, shops, food and drink premises) 100% apartments	This schedule applies to a part of the railway line corridor at Ormond Station, generally bounded by Newham Grove, Katandra Road and North Road and more particularly described in the North Road, Ormond, Comprehensive Development Plan. Sources: Commercial and retail floor space capacity is sourced from permit exemptions in Schedule 1 to the Clause 37.02 Comprehensive Development Zone (CDZ1) and the North Road, Ormond, Comprehensive Development Plan (CDP). The Total Dwelling capacity assumption is based on supporting information submitted by the LXRA for planning scheme amendment C170 – the Ormond Station Urban Renewal Opportunity Transport Impact Assessment prepared by GTA Consultants (issue E 05/08/16). Although this assessment refers to original designs for Amendment C170 (revoked), it is assumed that overall dwelling yield according to final requirements introduced by Amendment C180 will be similar based on redistributed floor plate and height requirements in the CDP.

Source: SGS Economics and Planning, 2018

APPENDIX G: RESIDENTIAL ASSESSMENT-ADDITIONAL DETAIL

Dwelling Demand

Table 30 includes .id Consulting projections for the City of Glen Eira. These projections indicate that the most demand is expected to occur in Caulfield North-Caulfield East, Carnegie and Bentleigh East. There is also reasonable demand for new dwellings expected in Bentleigh and Elsternwick-Gardenvale. All other suburbs are expected to have low growth in dwellings over this period. Carnegie and Caulfield North- Caulfield East are expected to have the highest annual growth rate, while all other suburbs are expected to grow by 1.1% or lower each year.

TABLE 33: EXISTING AND PROJECTED NUMBER OF DWELLINGS BY .ID SMALL AREA

Suburb	2016	2036	Dwelling Demand (Change 2016-2036)	Average Annual Growth Rate
Bentleigh	7,081	8,833	1,752	1.1%
Bentleigh East	10,993	13,205	2,212	0.9%
Carnegie	7,985	10,787	2,802	1.5%
Caulfield	2,340	2,713	373	0.7%
Caulfield North - Caulfield East	7,419	11,775	4,356	2.3%
Caulfield South	5,030	5,780	750	0.7%
Elsternwick - Gardenvale	5,210	6,463	1,253	1.1%
Glen Huntly	2,443	2,921	478	0.9%
McKinnon	2,298	2,857	559	1.1%
Murrumbeena	4,533	5,257	724	0.7%
Ormond	3,575	4,173	598	0.8%
St Kilda East	1,557	1,717	160	0.5%
City of Glen Eira	**60,463**	**76,480**	**16,017**	**1.2%**

Source: .id forecasts, 2018

Table 31 summarises the projected numbers of dwellings by housing type. This applies the LGA results from the SGS Housing Model to the .id Consulting projections.

TABLE 34: DEMAND FOR DIFFERENT HOUSING TYPES BY .ID SMALL AREA 2016-2036

.id Small Area	Single detached dwelling	Townhouse/Villa	Apartment	Total
Bentleigh	312	833	577	1,752
Bentleigh East	432	1,153	649	2,212
Carnegie	288	1,089	1,442	2,802
Caulfield	72	128	144	373
Caulfield North - Caulfield East	673	1538	2,162	4,356
Caulfield South	144	256	360	750
Elsternwick - Gardenvale	168	384	721	1,253
Glen Huntly	48	128	288	478
McKinnon	72	256	216	559
Murrumbeena	96	320	288	724
Ormond	72	256	288	598
St Kilda East	24	64	72	160
City of Glen Eira	**2,403**	**6,407**	**7,208**	**16,017**

Source: SGS Economics and Planning, 2018

.id Small Area

Table 32 provides a summary of residential capacity by .id small area, which are equivalent to suburbs.

The areas with the most capacity to accommodate for additional dwellings are in the suburb of Bentleigh East (9,106 dwellings), Caulfield North - Caulfield East (6,093 dwellings), Bentleigh (5,428 dwellings) and Elsternwick – Gardenvale (4,481 dwellings).

TABLE 35: SUMMARY OF CAPACITY BY SUBURB

.id Small Area	Existing Residential supply (no. dwellings)	Total residential capacity (no. dwellings) 2016	Net residential capacity (no. dwellings) 2016
Bentleigh	7,093	7,357	5,428
Bentleigh East	10,988	12,993	9,106
Carnegie	7,978	7,291	5,898
Caulfield	2,332	2,316	1,706
Caulfield North - Caulfield East	8,389	7,952	6,093
Caulfield South	4,948	4,071	2,814
Elsternwick - Gardenvale	5,468	5,690	4,481
Glen Huntly	2,410	1,428	1,178
McKinnon	2,251	2,450	1,832
Murrumbeena	4,484	3,954	2,832
Ormond	3,523	3,428	2,708
St Kilda East	1,523	1,252	918
Total	**61,387**	**60,182**	**44,993**

Source: SGS Economics and Planning, 2018; i.d., 2016

Note: (1) Includes East Village Precinct

(2) Capacity at Caulfield Station Precinct not included pending Structure Plan release

Capacity figures are rounded

Activity Centre and remainder areas

Capacity for new housing by activity centre is shown in Table 33.

TABLE 36: SUMMARY OF CAPACITY BY ACTIVITY CENTRE STUDY AREAS

	Existing Residential supply (no. dwellings)	Total residential capacity (no. dwellings) 2016	Net residential capacity (no. dwellings) 2016
Activity Centre Assessment Areas			
Alma Village Neighbourhood Centre	534	500	406
Bentleigh East Large Neighbourhood Activity Centre	1,590	3,138	2,586
Bentleigh Major Activity Centre	2,189	3,414	2,879
Carnegie Major Activity Centre with Urban Renewal	2,313	4,112	3,679
Caulfield Park Neighbourhood Centre	1,145	1,768	1,439
Caulfield South Large Neighbourhood Centre	1,521	2,485	2,113
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	1,039	1,476	1,454
East Village Emerging health, education and innovation precinct	0	3,000	3,000
Elsternwick Major Activity Centre with Urban Renewal	1,727	4,161	3,577
Gardenvale Neighbourhood Centre	534	217	140
Glen Huntly Emerging Major Activity Centre	2,425	2,239	1,940
Hughesdale Neighbourhood Centre	793	827	636
McKinnon Neighbourhood Centre	925	1,702	1,444
Moorabbin Junction Emerging MAC with Urban Renewal	860	1,087	857
Murrumbeena Neighbourhood Centre	2,218	2,620	2,173
Ormond Neighbourhood Centre	2,076	2,689	2,298
Patterson Neighbourhood Centre	815	626	382
Ripponlea Neighbourhood Centre	368	178	127
Outside of Activity Centre Assessment Areas			
Bentleigh (remainder)	2,705	1,737	957
Bentleigh East (remainder)	9,956	7,374	3,885
Carnegie (remainder)	4,533	1,690	976
Caulfield (remainder)	1,473	1,010	577
Caulfield North - Caulfield East (remainder)	5,671	4,206	2,792
Caulfield South (remainder)	3,883	2,483	1,521
Elsternwick - Gardenvale (remainder)	3,085	1,248	726
Glen Huntly (remainder)	1,107	276	129
McKinnon (remainder)	1,326	748	388
Murrumbeena (remainder)	1,886	1,317	684
Ormond (remainder)	1,413	713	396
St Kilda East (remainder)	1,277	1,139	829
Total	**61,387**	**60,182**	**44,993**

Source: SGS Economics and Planning, 2018

Housing Types

Table 34 provides a summary of the dwelling capacity for each .id small area by building type.

The majority of the net capacity for detached dwellings is in Bentleigh East (30%), Caulfield North – Caulfield East (12%), and Bentleigh (12%). The majority of net capacity for additional townhouses/villas is in Bentleigh East (17%), Caulfield North – Caulfield East (14%), Bentleigh (14%), and Carnegie (12%).

The net capacity for apartments are expected to be relatively evenly split between the suburbs of Elsternwick – Gardenvale (19%) and Caulfield North - Caulfield East (17%).

TABLE 37: NET DWELLING CAPACITY BY BUILDING TYPOLOGY BY ACTIVITY CITY SUBURB

Suburb	Detached		Townhouses/villas		Apartments	
	No. Dwellings	%	No. Dwellings	%	No. Dwellings	%
Bentleigh	1,104	12%	1,646	13%	2,526	12%
Bentleigh East [1]	2,828	30%	2,952	23%	3,215	15%
Carnegie	654	7%	1,483	11%	3,697	18%
Caulfield	369	4%	482	4%	828	4%
Caulfield North - Caulfield East [2]	1,194	12%	1,655	13%	3,177	15%
Caulfield South	806	8%	891	7%	1,010	5%
Elsternwick - Gardenvale	403	4%	494	4%	3,524	17%
Glen Huntly	174	2%	349	3%	497	2%
McKinnon	487	5%	750	6%	554	3%
Murrumbeena	819	9%	1,047	8%	791	4%
Ormond	539	6%	966	7%	909	4%
St Kilda East	188	2%	336	3%	393	2%
Other	4	0%	9	0%	0	0%
Total	**9,568**	**100%**	**13,059**	**100%**	**21,122**	**100%**

Source: SGS Economics and Planning, 2018

Note: [1] Includes East Village Precinct

[2] Capacity at Caulfield Station Precinct not included pending Structure Plan release

Capacity in Structure Plan Centres

The method for assessing net retail and commercial capacity figures different from that used for residential net capacity assessments. There is no lot specific information available for retail and commercial floorspace, so net capacity is determined at the Activity Centre assessment area or remainder area scale.

TABLE 38: ELSTERNWICK STRUCTURE PLAN AREA

Building Typology	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
Shop top standard	80	0	40	-	-
Strategic site A	380	4	640	-	-
Strategic site B	40	1	80	-	-
Urban renewal	180	6	1,600	-	-
Heritage and character housing	280	3	50	-	-
Minimal change	190	3	30	-	-
Garden townhouse	220	1	70	-	-
Garden apartment	240	2	450	-	-
Total	**1,600**	**21**	**2,960**	**126,550**	**62,700**

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 39: CARNEGIE STRUCTURE PLAN AREA

Building Typology	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
Shop top standard	130	1	210	-	-
Strategic site A	200	3	380	-	-
Urban renewal	40	5	1,200	-	-
Heritage and character housing	40	0	0	-	-
Minimal change	630	5	70	-	-
Garden townhouse	270	2	130	-	-
Townhouse and apartment mix	320	3	460	-	-
Garden apartment	580	3	580	-	-
Total	2,200	23	3,040	83,690	40,090

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 40: BENTLEIGH STRUCTURE PLAN AREA

Building Typology	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
Shop top standard	80	5	770	-	-
Strategic site B	20	4	390	-	-
Heritage and character housing	440	3	50	-	-
Minimal change	1,000	25	350	-	-
Garden townhouse	280	6	350	-	-
Townhouse and apartment mix	160	2	320	-	-
Garden apartment	170	3	490	-	-
Total	2,140	47	2,720	53,300	27,000

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

Capacity in Activity Centre Assessment Areas

TABLE 41: ALMA VILLAGE NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	190	2	20	-	-
GRZ-LS	210	3	180	-	-
GRZ-MR	110	1	160	-	-
C1Z	20	0	50	-	-
Total	530	6	410	-2,300	1,540

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 42: BENTLEIGH EAST LARGE NEIGHBOURHOOD ACTIVITY CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	430	13	180	-	-
GRZ-LS	790	19	1,130	-	-
GRZ-MR	300	6	790	-	-
C1Z	70	3	450	-	-
MUZ1	0	0	20	-	-
Total	1,590	41	2,590	10,590	11,800

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 43: CAULFIELD PARK NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	410	9	120	-	-
GRZ-LS	350	10	570	-	-
GRZ-MR	320	3	350	-	-
C1Z	70	3	400	-	-
Total	1,150	24	1,440	-10,710	12,480

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 44: CAULFIELD SOUTH LARGE NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	560	6	80	-	-
GRZ-LS	670	11	610	-	-
GRZ-MR	210	3	460	-	-
C1Z	90	7	960	-	-
Total	1,520	27	2,110	23,760	29,500

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 45: CAULFIELD STATION PRECINCT HEALTH, EDUCATION AND INNOVATION PRECINCT WITH URBAN RENEWAL BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	20	0	0	-	-
GRZ-MR	30	0	20	-	-
RGZ1	120	1	170	-	-
PDZ2	870	4	1,200	-	-
C1Z	0	0	50	-	-
Total	1,040	5	1,450	640	-270

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 46: EAST VILLAGE EMERGING HEALTH, EDUCATION AND INNOVATION PRECINCT BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
C1Z	0	13	1,590	-	-
IN1Z	0	11	1,410	-	-
Total	0	24	3,000	48,050	27,650

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 47: GARDENVALE NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	500	5	70	-	-
C1Z	30	0	70	-	-
C2Z	0	1	0	-	-
Total	530	7	140	22,400	2,040

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 48: GLEN HUNTLY EMERGING MAJOR ACTIVITY CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	540	9	120	-	-
GRZ-LS	1,060	6	370	-	-
GRZ-MR	770	6	770	-	-
C1Z	60	4	550	-	-
MUZ1	0	1	140	-	-
Total	2,430	25	1,940	19,510	16,730

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 49: HUGHESDALE NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	260	7	100	-	-
GRZ-LS	410	4	270	-	-
GRZ-MR	100	1	120	-	-
C1Z	30	1	100	-	-
MUZ1	0	0	40	-	-
Total	790	13	640	5,460	3,010

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 50: MCKINNON NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	300	4	60	-	-
GRZ-LS	450	11	650	-	-
GRZ-MR	100	3	420	-	-
C1Z	70	2	310	-	-
Total	930	20	1,440	6,320	9,160

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 51: MOORABBIN JUNCTION EMERGING MAC WITH URBAN RENEWAL BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	400	10	140	-	-
GRZ-LS	370	5	290	-	-
GRZ-MR	60	1	200	-	-
C1Z	40	2	230	-	-
C2Z	0	1	0	-	-
Total	860	19	860	25,420	6,810

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 52: MURRUMBEENA NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	390	10	140	-	-
GRZ-LS	1,070	15	880	-	-
GRZ-MR	670	6	780	-	-
RGZ1	10	1	30	-	-
C1Z	60	2	290	-	-
MUZ1	20	0	50	-	-
Total	2,220	34	2,170	11,440	10,670

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 53: ORMOND NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	240	7	100	-	-
GRZ-LS	1,390	14	820	-	-
GRZ-MR	350	5	670	-	-
C1Z	40	3	460	-	-
MUZ1	60	0	30	-	-
Total	2,080	29	2,080	10,660	14,570

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 54: PATTERSON NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	760	17	240	-	-
C1Z	50	1	140	-	-
C2Z	0	1	0	-	-
Total	820	18	380	17,810	3,920

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 55: RIPPONLEA NEIGHBOURHOOD CENTRE BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	290	3	40	-	-
GRZ-MR	70	0	60	-	-
C1Z	0	0	10	-	-
MUZ1	0	0	10	-	-
MUZ2	0	0	10	-	-
Total	370	3	130	190	1,530

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 56: BENTLEIGH (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	2,690	53	790	-	-
RGZ2	0	1	110	-	-
C1Z	10	0	60	-	-
C2Z	0	3	0	-	-
Total	2,710	57	960	52,700	1,680

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 57: BENTLEIGH EAST (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	9,880	237	3,510	-	-
C1Z	80	3	380	-	-
C2Z	0	2	0	-	-
Total	9,960	242	3,890	19,190	8,630

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 58: CARNEGIE (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	4,320	48	629	-	-
GRZ-LS	30	0	0	-	-
GRZ-MR	180	2	289	-	-
C1Z	10	0	58	-	-
Total	4,530	51	980	-4,190	-260

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 59: CAULFIELD (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	1,350	29	360	-	-
GRZ-LS	10	0	0	-	-
GRZ-MR	110	2	220	-	-
C2Z	0	1	0	-	-
Total	1,470	32	580	11,300	0

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 60: CAULFIELD NORTH - CAULFIELD EAST (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	4,870	105	1,240	-	-
GRZ-LS	120	0	10	-	-
GRZ-MR	670	9	1,250	-	-
C1Z	10	2	300	-	-
Total	5,670	116	2,790	-6,720	9,020

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 61: CAULFIELD SOUTH (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	3,670	63	900	-	-
GRZ-MR	140	3	450	-	-
C1Z	60	1	120	-	-
MUZ1	10	0	50	-	-
Total	3,880	68	1,520	5,690	4,530

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 62: ELSTERNWICK - GARDENVALE (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	2,960	38	510	-	-
GRZ-MR	90	0	0	-	-
C1Z	30	2	210	-	-
Total	3,090	40	730	-3,230	4,350

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 63: GLEN HUNTLY (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	1,110	10	130	-	-
Total	1,110	10	130	-	-

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 64: MCKINNON (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	1,320	26	360	-	-
C1Z	10	0	30	-	-
Total	1,330	26	390	-690	1,070

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 65: MURRUMBEENA (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	1,870	45	650	-	-
MUZ1	10	0	40	-	-
Total	1,890	45	680	-340	1,130

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 66: ORMOND (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	1,410	22	310	-	-
C1Z	0	0	60	-	-
MUZ3	0	1	30	-	-
Total	1,410	23	400	320	0

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

TABLE 67: ST KILDA EAST (REMAINDER) BY PLANNING ZONE

Zone	Existing dwellings	Available land (ha)	Net Residential Capacity (no. dwellings) 2016	Net Commercial Capacity (sqm) 2016	Net Retail Capacity (sqm) 2016
NRZ1	980	22	250	-	-
GRZ-LS	10	0	0	-	-
GRZ-MR	290	4	580	-	-
Total	1,280	26	830	-	-

Source: SGS Economics and Planning, 2018
Note Existing dwelling figures and capacity figures have been rounded to the nearest 10s

Forecast Take Up of housing types by activity centre assessment area

TABLE 68: DWELLING TAKE UP BY BUILDING TYPOLOGY

	Detached Dwellings	Townhouses /villas	Apartments	Total Take- up
Activity Centre Assessment Areas				
Alma Village Neighbourhood Centre		154	43	197
Bentleigh East Large Neighbourhood Activity Centre		346	324	670
Bentleigh Major Activity Centre		541	404	945
Carnegie Major Activity Centre with Urban Renewal		327	1,442	1,768
Caulfield Park Neighbourhood Centre		461	144	605
Caulfield South Large Neighbourhood Centre		577	721	1,297
Caulfield Station Precinct Health, education and innovation precinct with urban renewal			1,427	1427
East Village Emerging health, education and innovation precinct		461	324	786
Elsternwick Major Activity Centre with Urban Renewal		122	1,009	1,131
Gardenvale Neighbourhood Centre			36	36
Glen Huntly Emerging Major Activity Centre		128	288	416
Hughesdale Neighbourhood Centre		256	86	343
McKinnon Neighbourhood Centre		372	216	588
Moorabbin Junction Emerging MAC with Urban Renewal		67	115	183
Murrumbeena Neighbourhood Centre		708	202	910
Ormond Neighbourhood Centre		256	288	545
Patterson Neighbourhood Centre			58	58
Ripponlea Neighbourhood Centre		19	36.0	55
Outside of activity centres				
Bentleigh (remainder)	312	83		396
Bentleigh East (remainder)	432	346		778
Carnegie (remainder)	288	54		343
Caulfield (remainder)	72	64		136
Caulfield North - Caulfield East (remainder)	673	769	43	1,485
Caulfield South (remainder)	144	128		272
Elsternwick - Gardenvale (remainder)	168	77		245
Glen Huntly (remainder)	48	0		48
McKinnon (remainder)	72	26		98
Murrumbeena (remainder)	96	64		160
Ormond (remainder)	72	0		72
St Kilda East (remainder)	24			24
Total	**2,403**	**6,407**	**7,208**	**16,017**

Source: SGS Economics and Planning, 2018
Note: Capacity at Caulfield Station Precinct not included pending Structure Plan release

APPENDIX H: RETAIL ASSESSMENT- ADDITIONAL INFORMATION

TABLE 69: ADDITIONAL RETAIL FLOORSPACE DEMAND: 2016-2036 (SQM)

.id Small Area	Retail Demand 2016 (sqm)	Retail Demand 2036 (sqm)	Additional Retail Floorspace Required: 2016-2036
Bentleigh	50,600	78,200	27,600
Bentleigh East	29,400	61,800	32,400
Carnegie	26,800	41,400	14,600
Caulfield	6,500	10,000	3,500
Caulfield North - Caulfield East*	14,300	22,000	7,700
Caulfield South	7,200	11,100	3,900
Elsternwick - Gardenvale	39,700	61,300	21,600
Glen Huntly	9,300	14,300	5,000
McKinnon	1,400	2,100	700
Murrumbeena	5,300	8,100	2,800
Ormond	8,600	13,200	4,600
St Kilda East	3,000	6,700	3,700
City of Glen Eira	201,900	330,200	128,300

Source: SGS Economics and Planning, 2018

FIGURE 24. ADDITIONAL RETAIL FLOORSPACE DEMAND: 2016-2036 (SQM)

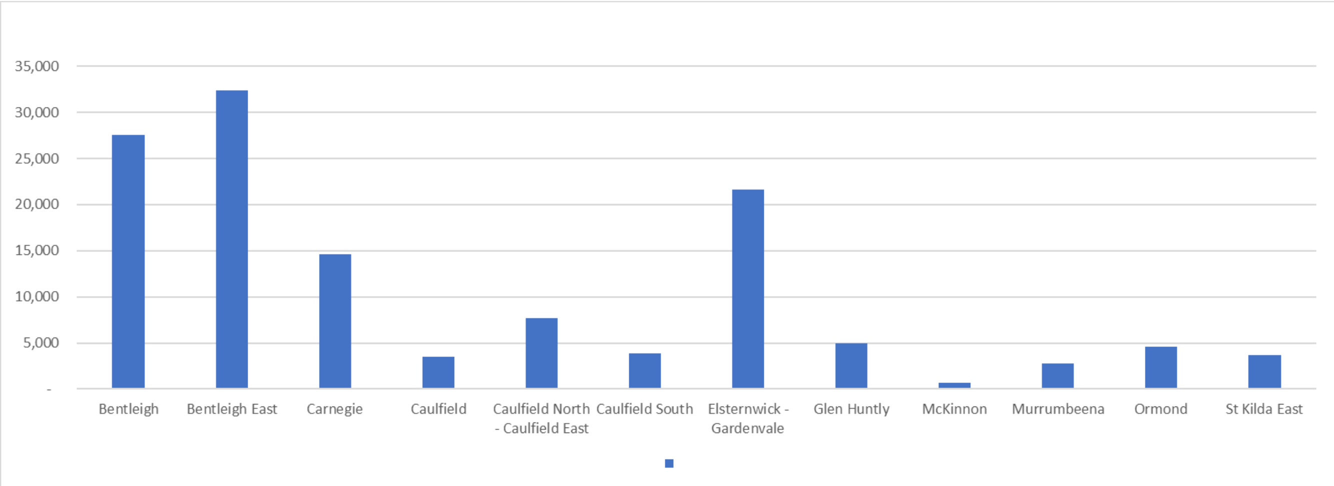


TABLE 70: ADDITIONAL RETAIL FLOORSPACE DEMANDED: 2016-2036 (SQM)

	Retail Demand 2016 (sqm)	Retail Demand 2036 (sqm)	Additional Retail Floorspace Required: 2016-2036
Activity Centre Assessment Areas			
Alma Village Neighbourhood Centre	1,000	1,700	700
Bentleigh East Large Neighbourhood Activity Centre	9,700	16,000	6,300
Bentleigh Major Activity Centre	35,400	58,100	22,700
Carnegie Major Activity Centre with Urban Renewal	28,100	46,100	18,000
Caulfield Park Neighbourhood Centre	4,500	7,400	2,900
Caulfield South Large Neighbourhood Centre	11,900	19,600	7,700
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	5,600	9,200	3,600
East Village Emerging health, education and innovation precinct	-	19,100	19,100
Elsternwick Major Activity Centre with Urban Renewal	29,000	47,600	18,600
Gardenvale Neighbourhood Centre	1,400	2,300	900
Glen Huntly Emerging Major Activity Centre	12,200	20,100	7,900
Hughesdale Neighbourhood Centre	3,100	5,100	2,000
McKinnon Neighbourhood Centre	4,500	7,400	2,900
Moorabbin Junction Emerging MAC with Urban Renewal	2,800	4,600	1,800
Murrumbeena Neighbourhood Centre	4,900	8,100	3,200
Ormond Neighbourhood Centre	12,800	21,000	8,200
Patterson Neighbourhood Centre	2,500	4,100	1,600
Ripponlea Neighbourhood Centre	300	500	200
Outside of Activity Centres			
Bentleigh (remainder)	1,000	1,000	-
Bentleigh East (remainder)	9,000	9,000	-
Carnegie (remainder)	3,600	3,600	-
Caulfield (remainder)	2,500	2,500	-
Caulfield North - Caulfield East (remainder)	3,800	3,800	-
Caulfield South (remainder)	4,500	4,500	-
Elsternwick - Gardenvale (remainder)	6,300	6,300	-
Glen Huntly (remainder)	-	-	-
McKinnon (remainder)	300	300	-
Murrumbeena (remainder)	1,000	1,000	-
Ormond (remainder)	-	-	-
St Kilda East (remainder)	-	-	-
Total	**201,700**	**330,000**	**128,300**

Source: SGS Economics and Planning, 2018
Note: Capacity at Caulfield Station Precinct not included pending Structure Plan release

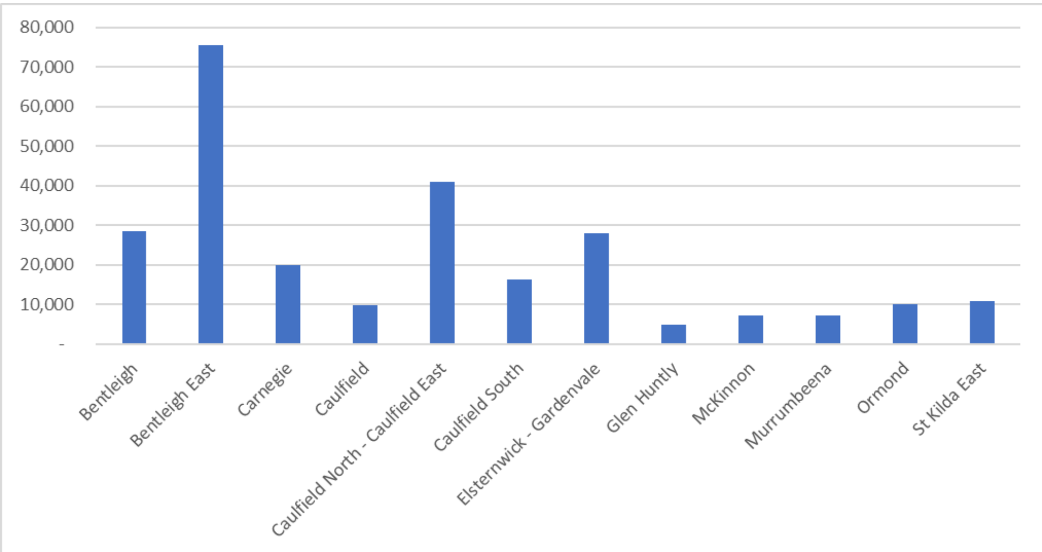
APPENDIX I: COMMERCIAL ASSESSMENT-ADDITIONAL DETAIL

TABLE 71: ADDITIONAL COMMERCIAL FLOORSPACE DEMAND: 2016-2036 (SQM)

.id Small Area	Demand 2016 (sqm)	Demand 2036 (sqm)	Additional Commercial Floorspace Required: 2016-2036
Bentleigh	47,700	76,100	28,400
Bentleigh East	56,500	132,100	75,600
Carnegie	31,500	51,500	20,000
Caulfield	15,000	24,900	9,900
Caulfield North - Caulfield East	65,700	106,800	41,100
Caulfield South	23,700	40,100	16,400
Elsternwick - Gardenvale	53,600	81,500	27,900
Glen Huntly	6,900	11,700	4,800
McKinnon	10,000	17,200	7,200
Murrumbeena	10,300	17,400	7,100
Ormond	15,300	25,500	10,200
St Kilda East	14,900	25,700	10,800
City of Glen Eira	351,100	610,500	259,400

Source: SGS Economics and Planning, 2018

FIGURE 25. ADDITIONAL COMMERCIAL FLOORSPACE DEMAND: 2016-2036 (SQM)



Source: SGS Economics and Planning, 2018

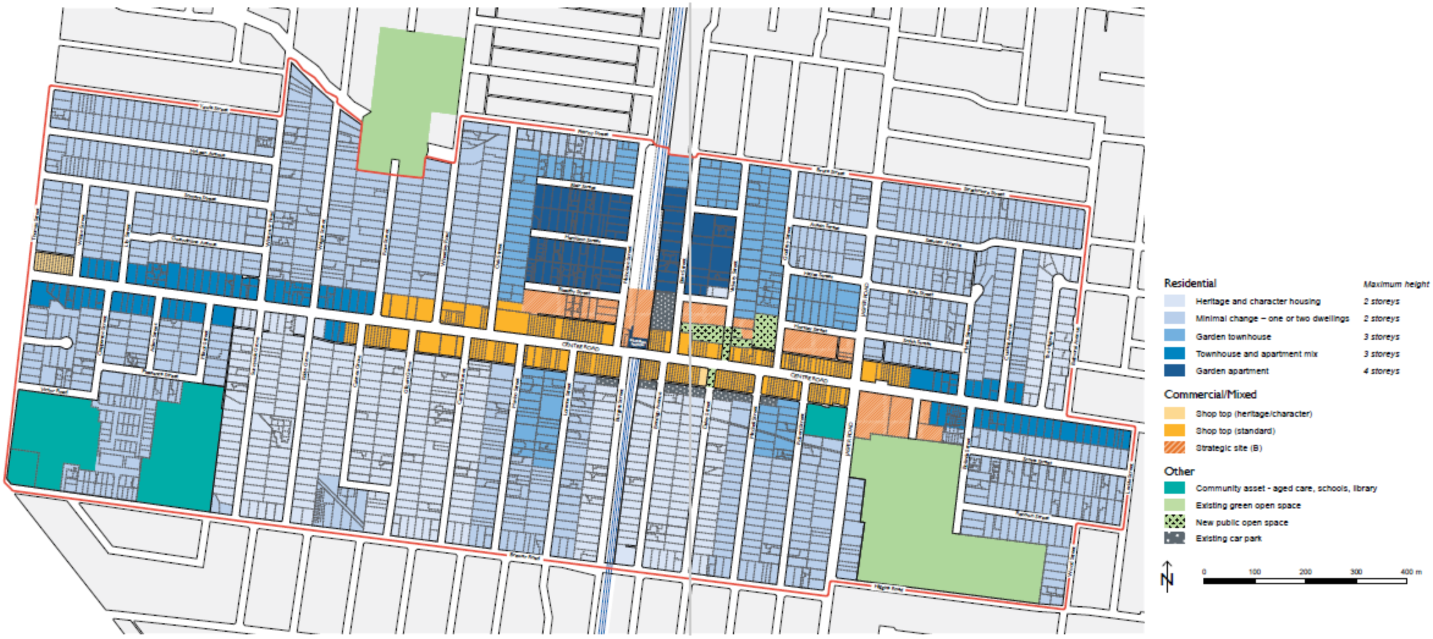
TABLE 72: ADDITIONAL COMMERCIAL FLOORSPACE DEMAND: 2016-2036 (SQM)

	Commercial Demand 2016 (sqm)	Commercial Demand 2036 (sqm)	Additional Commercial Floorspace Required: 2016-2036
Activity Centre assessment areas			
Alma Village Neighbourhood Centre	9,000	14,700	5,700
Bentleigh East Large Neighbourhood Activity Centre	11,300	18,800	7,500
Bentleigh Major Activity Centre	25,100	39,500	14,400
Carnegie Major Activity Centre with Urban Renewal	20,000	32,400	12,400
Caulfield Park Neighbourhood Centre	32,500	52,700	20,200
Caulfield South Large Neighbourhood Centre	19,000	31,800	12,800
Caulfield Station Precinct Health, education and innovation precinct with urban renewal	3,500	5,600	2,100
East Village Emerging health, education and innovation precinct	9,600	57,600	48,000
Elsternwick Major Activity Centre with Urban Renewal	33,100	50,400	17,300
Gardenvale Neighbourhood Centre	5,000	8,700	3,700
Glen Huntly Emerging Major Activity Centre	9,000	15,500	6,500
Hughesdale Neighbourhood Centre	400	700	300
McKinnon Neighbourhood Centre	8,100	14,100	6,000
Moorabbin Junction Emerging MAC with Urban Renewal	10,600	17,100	6,500
Murrumbeena Neighbourhood Centre	7,200	11,800	4,600
Ormond Neighbourhood Centre	13,500	22,600	9,100
Patterson Neighbourhood Centre	6,900	10,900	4,000
Ripponlea Neighbourhood Centre	1,800	2,600	800
Outside of Activity Centre assessment areas			
Bentleigh (remainder)	6,100	10,300	4,200
Bentleigh East (remainder)	37,600	60,100	22,500
Carnegie (remainder)	8,500	14,300	5,800
Caulfield (remainder)	6,400	10,600	4,200
Caulfield North - Caulfield East (remainder)	22,500	36,800	14,300
Caulfield South (remainder)	14,100	23,900	9,800
Elsternwick - Gardenvale (remainder)	15,800	23,300	7,500
Glen Huntly (remainder)	800	1,400	600
McKinnon (remainder)	2,200	3,600	1,400
Murrumbeena (remainder)	4,400	7,400	3,000
Ormond (remainder)	2,200	3,600	1,400
St Kilda East (remainder)	4,700	7,700	3,000
Total	351,100	610,500	259,400

Source: SGS Economics and Planning, 2018
Note: Capacity at Caulfield Station Precinct not included pending Structure Plan release

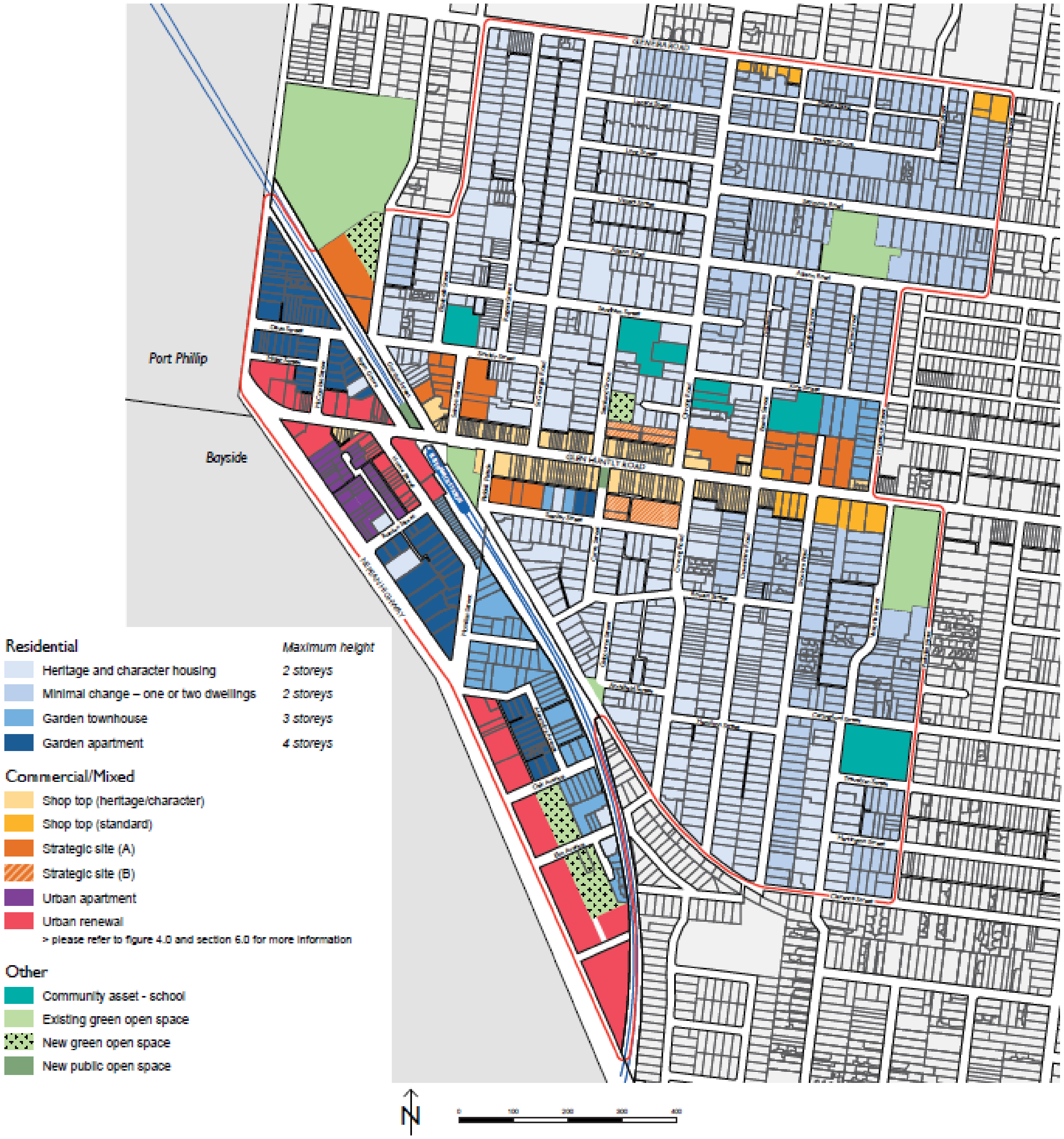
APPENDIX J: STRUCTURE PLAN AREAS

FIGURE 26: BENTLEIGH ACTIVITY CENTRE STRUCTURE PLANS



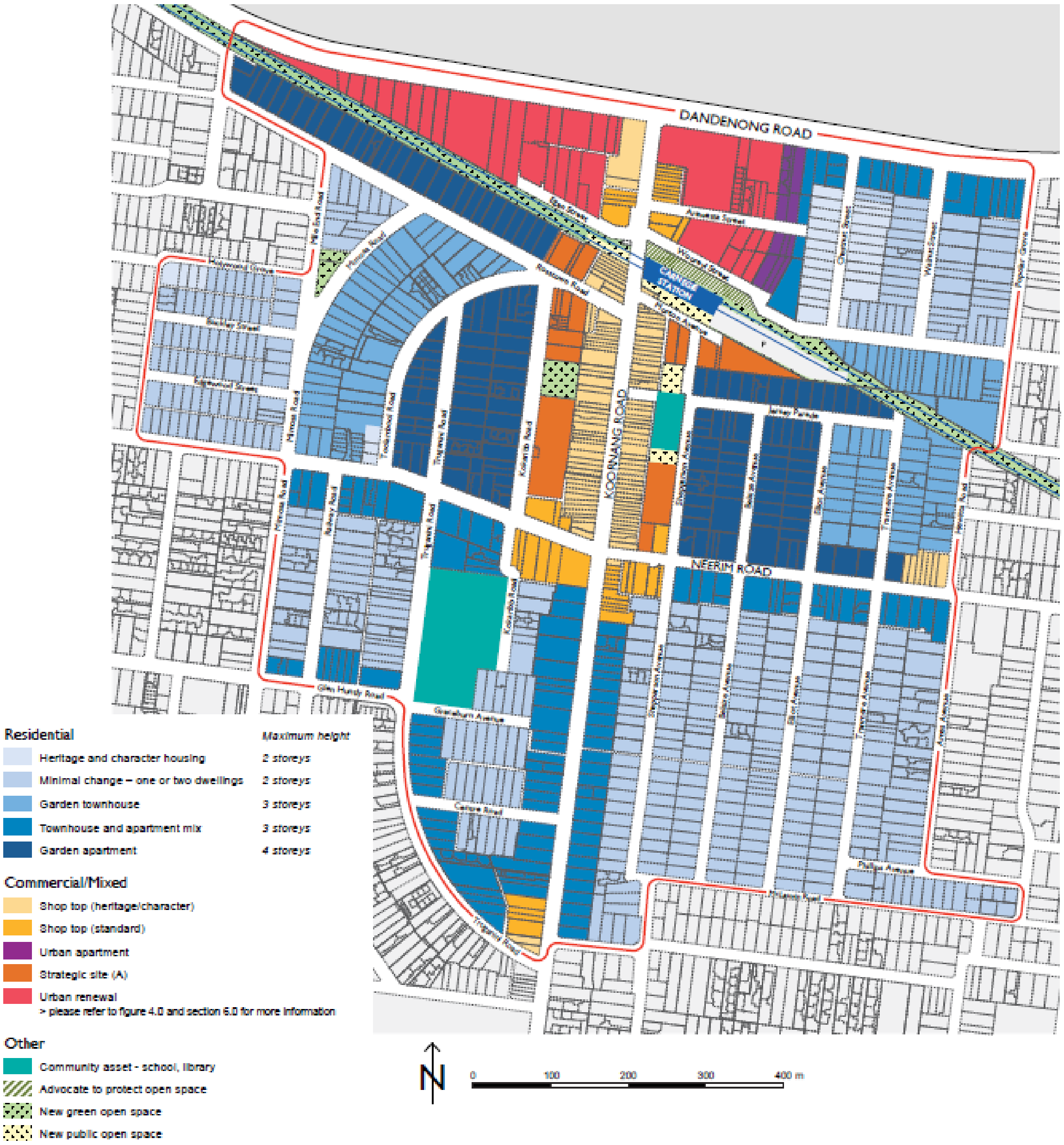
Source: City of Glen Eira, 2018

FIGURE 27: CARNEGIE ACTIVITY CENTRE STRUCTURE PLAN



Source: City of Glen Eira, 2018

FIGURE 28: ELSTERNWICK ACTIVITY CENTRE STRUCTURE PLAN



Source: City of Glen Eira, 2018.

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