SUBURBAN RAIL LOOP EAST

SRL East Draft Structure Plan | Monash

Economic Profile Technical Report

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SRL EAST DRAFT STRUCTURE PLAN - ECONOMIC PROFILE TECHNICAL REPORT- MONASH

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Contents

Appendices

Executive summary

As part of the Suburban Rail Loop (SRL) East project, Draft Structure Plans (Structure Plans) are being prepared for the neighbourhoods surrounding the new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

The Structure Plans will set a vision and framework to guide growth and change in each neighbourhood, while protecting and preserving the character and features people love about them now.

This technical report will inform the development of the Structure Plans.

PURPOSE OF MONASH'S ECONOMIC PROFILE

Understanding how Monash's economic role and function will evolve with the introduction of SRL East is crucial for structure planning, especially for understanding the need to accommodate future employment-related land uses.

This report evaluates the economic and job growth potential of the Structure Plan Area and examines to what extent the market can deliver the forecast additional employment floorspace.

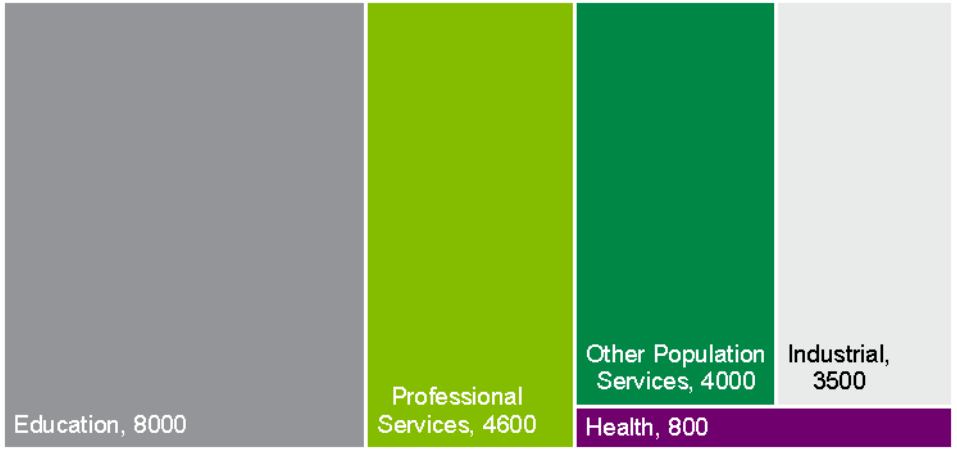
Recommendations to consider when developing the Structure Plan are made to ensure the right amount and type of employment floorspace is delivered in the right locations.

MONASH'S ECONOMY TODAY

In 2021 the Structure Plan Area hosted just under 21,000 workers which is more than double the number of local residents at 9800. Monash's workforce contributes approximately $137.3 billion to the Victorian economy annually. Over the past decade, job growth has been solid at 3.2% per year annum, adding about 560 workers annually. There are fifteen large businesses with over 200 employees, likely to be education and industrial. This number has increased dramatically over the last decade. Business formation has grown at around 3% per year, mainly driven by small to medium- sized businesses.

ECONOMIC SNAPSHOT OF MONASH, 2021

Source: Cordell Connect data for employment pipeline, Cordell presents pipeline in terms of gross floor area. Job and resident data from ABS Census 2011 and 2021. Business data excludes non-employing businesses, for years 2013 and 2023. ABS Business Counts. Economic value add data for 2021 from REMPLAN.



JOBS BY BROAD INDUSTRY IN MONASH, 2021

Source: ABS Census of Population Aged 15+ [2011 & 2021]

FINDINGS

Monash Structure Plan is located within the Monash NEIC and a designated health and education precinct. As part of a NEIC, Monash Structure Plan will play a crucial role in stimulating economic activity for the region over the coming decades, serving as one of the largest employment hubs outside the CBD. In 2021, Monash Structure Plan Area had approximately 21,000 workers which is more than the number of local residents at 9800. Almost 1 in 3 workers were in the education sector.

The economy within the Structure Plan Area has experienced strong growth over the past decade, primarily driven by significant worker growth in the education sector. This sector remains a clear specialisation for Monash and is likely to continue defining its future growth. Professional services have also seen strong growth particularly in professional, scientific and technical services. There has been modest growth in population services, primarily through an increase in construction workers within Industrial Areas and new office developments across the Structure Plan Area.

Looking ahead, Monash will continue to be a leading education and research precinct, both in Australia and globally. Monash University is already enhancing the R&D capabilities of the Structure Plan Area and will remain a significant contributor to job growth, driving demand for various services and activities across multiple sectors.

The development of a new mixed use Monash Town Centre and the SRL Station have the potential to create the required shift to support growth of the knowledge-based industries and higher density office development. Future planning of the Town Centre should focus on delivering exceptional worker amenity and creating a vibrant centre to support both growth in worker, students and residents. Industrial areas are likely also transition towards higher value industrial and offices uses and in some Industrial Areas, Monash will evolve its specialisation in R&D and advanced manufacturing.

The total floorspace growth by use forecast to be required, as derived from this report, is summarised in the table overleaf.

MONASH STRUCTURE PLAN AREA, EMPLOYMENT FLOORSPACE REQUIREMENTS (SQ.M)

LAND USE	FLOORSPACE 2021, (GROSS BUILDING AREA)	FLOORSPACE 2041, (GROSS BUILDING AREA)	ADDITIONAL FLOORSPACE 2021-2041 (GROSS BUILDING AREA)
Industrial	531,200	687,400	156,200
Education	525,900	853,100	327,200
Office	318,300	730,000	411,700
Health	3,700	74,300	70,600
Entertainment / Recreation	45,300	67,100	21,800
Retail	41,600	56,700	15,100
Accommodation	32,400	71,400	39,000
Public Use	14,500	22,800	8,300
Total	**1,512,900**	**2,562,800**	**1,049,900**

Note: Retail floorspace figure in this table is the mid-point of the GBA range outlined in the Retail Needs Report.

Source: Derived from CityPlan (published in SRL BIC), AJM JV

RECOMMENDATIONS

The recommendations below summarised with their locations shown in the figure at the end of this Executive Summary. The numbers on the figure refer to the number of the recommendations below.

Office floorspace

1. **Plan for an increase of over 400,000 sq.m Gross Building Area (GBA) office floorspace across the Monash Structure Plan area, primarily focused around the new station.** To support the establishment of an office cluster at the Monash Town Centre, structure planning should accommodate most of the required office floorspace in and around the Town Centre. Offices should be prioritised in locations with excellent access to the SRL Station and complemented by a range of worker amenities including food and beverage (F&B) and retail. This will ensure the area is highly desirable for both workers and businesses.
2. **Provide for a diverse range of office uses in commercial areas surrounding a new Monash Town Centre.** This should include including larger campus style and mixed-use office spaces to be used for large format activities such as research, manufacturing and technology related.
3. **Support complementary office floorspace the in Blackburn Road Industrial Area and across Monash University.** This area can continue to be the focus for large knowledge and innovation anchors and modern industrial uses, larger-scale office development, potentially campus style.

Health Floorspace

4. **Focus future health floorspace towards the Monash Town Centre and around the Heart Hospital.** A large share of the forecast health floorspace has already been delivered at the Victorian Heart Hospital. The balance of floorspace should be for local health services to support local workers, residents and students, and should be located primarily within a new Monash Town Centre.

Education Floorspace

5. **Focus future education floorspace on Monash University and within the Monash Town Centre.** Future tertiary education floorspace should continue to be located at the Monash University's Clayton Campus, preferably at the north of the campus, towards the future SRL East Station to help activate this area and improve linkages to the main campus building located centrally on the University site, although ultimately this is a decision for Monash University. Future education floorspace should also consider opportunities to integrate private sector office and R&D spaces in and around the potential new Town Centre. Overall, the modelling suggests around 327,000 sq.m of additional education floorspace will be needed to 2041, but this will be dependent on Monash University's long-term plans for growth on their site.
6. **Locate a small share of future school education floorspace on the existing school sites.** Future school floorspace will be primarily determined by the Department of Education and Training and align with population growth. Long term school planning, which is beyond the scope of this assessment, should consider the need for additional schools in the region.

Retail and Entertainment Floorspace

7. **As per the recommendations of the Monash Retail Needs report, plan for an additional 19,000- 22,000 sq.m Gross Building Area of retail and food and beverage (F&B) space in the Structure Plan Area.** Monash requires a new town centre to provide services and amenity for all users of the Structure Plan Area. As part of this amenity, there will need to be an expansion of the retail and F&B offer to support the growth in workers, students and residents. Retail uses should be primarily consolidated in the new Monash Town Centre, close to the train station.
8. **Support entertainment uses in the Monash Town Centre.** A new Monash Town Centre should be complemented by a range of entertainment uses, such as cinemas, pubs, bars, theatres, and leisure, subject to capacity. These will cater to students, workers and residents and help contribute a sense of liveliness to a new town centre.

Industrial Floorspace

9. **Support transition of Ferntree Gully Industrial Area to high value and higher density employment uses.** Consistent with the objectives of the Monash NEIC and its proximity to the new Monash Town Centre, the Ferntree Gully Precinct should transition towards a higher density employment precinct. The area is suitable for a wide range higher density employment typology including modern campus style office and modern industrial uses, such as technology, R&D and advanced manufacturing. Some office towers could be considered in areas closer to the new station. Enhancing the overall amenity, accessibility and supporting lot amalgamation will be critical for achieving this outcome.
10. **Blackburn Road Industrial Area to continue to provide for a range of anchor R&D and high value manufacturing activities.** The existing specialised advanced manufacturing and R&D institutions will continue to shape the future growth of the Blackburn Road Industrial Area. Future development could be a mix of offices and industrial spaces which align with the core R&D and advanced manufacturing focus of this area. Whilst some development may be infill around the large institutions, overall, the area is anticipated to have lower employment density, given the larger lots and proximity from the new Monash Town Centre. Henderson Road and Nantilla Road should be transitioned, building on the facilities recently developed/developing to the west of that area, such as the Australian Synchrotron and the Moderna mRNA Vaccine Manufacturing Facility.

Other Employment Floorspace

11. **Plan for an additional 39,000 sq.m of accommodation floorspace close to the station or part of a new Town Centre.** Accommodation will be a key component of a new Monash Town Centre, catering business travellers and also visitors associated with Monash University. Future accommodation should be located in and around the Monash Town Centre near amenities, public transport, offices, and retail.
12. **Support public use floorspace close to the new Monash Town Centre.** Public use floorspace will support the growth of non-office based public services. Modelling suggests that the Structure Plan will need to deliver a further 8300 sq.m of public use floorspace through to 2041.

Other recommendations to support employment growth

13. **Opportunity for residential in the new Monash Town Centre.** Incorporating residential development could foster a lively, mixed-use town centre. It could also stimulate additional demand for services and extend activity beyond business hours, crafting an engaging, multi-purpose Town Centre.
14. **Promote land amalgamation around the new Monash Town Centre.** Consider measures to encourage land amalgamation around the new Monash Town Centre given the small lot profile. Such measures should expediate development of a high-density, high-value employment precinct. Without significant land amalgamation, the Town Centre's transformation could be a prolonged process.
15. **Provide high worker amenity to attract businesses and workers.** Ensure the new Monash Town Centre and surrounding Ferntree Gully and Blackburn Road Industrial Areas provide a high level of worker amenity to help attract a range of businesses. including food and beverage (F&B) and access to public transport for future workers.

OTHER OPPORTUNITIES

Although potentially beyond the scope of the Structure Plan development and supporting Planning Scheme Amendments, other opportunities to support the necessary employment development in Monash include the following:

- **Opportunity 1 - Quality office and employment buildings -** Ensure high quality office and employment buildings to attract tenants. Any future design guidelines should support delivery of office buildings including mixed use office buildings, flexible and generous floorplates, high levels of external and internal amenity, technology infrastructure, and ability to achieve a high level of sustainability.
- **Opportunity 2 - Clearly define role and focus of each employment precinct -** Realising Monash's ambitious employment vision will require clear articulation of the role and priorities of key employment precincts. These are the Monash Town Centre, the Ferntree Gully Industrial Area, Blackburn Road Industrial Area and Monash University. Each precinct should articulate a distinct focus while also exploring avenues to optimise potential synergies among them. Moreover, these precincts need a unified strategy for effective collaboration, thereby fully realising Monash's potential as one of Melbourne's leading NEICs.

  Based on the analysis presented in this the Economic Profile, the potential economic roles for these precincts are as follows:

  - » **Monash Town Centre**, a dynamic mixed-use hub, will offer high-quality amenities for workers and visitors. As a central hub for technology, R&D, and advanced manufacturing within the broader NEIC, it will appeal to innovation-driven businesses, from startups to corporates, including those supporting the wider NEIC. It's also suitable for an expanded tertiary education offer.
  - » **Ferntree Gully Industrial Area** offers businesses town centre amenities and ample space for large campus-style or mixed employment buildings. It's particularly suitable for sectors involved in technology, research, and innovation.
  - » **Ferntree Gully Industrial Area** provides businesses with access to the amenities of the Monash Town Centre but also space for larger style campus or mixed employment buildings. This space is suited of a wide range of sectors but those in technology, research and innovation activities.
  - » **The Blackburn Road Industrial Area** should continue to grow a business ecosystem centred on its specialised advanced manufacturing and R&D institutions. Areas to the east can provide space for new businesses in a blend of office, research, and industrial uses.
- **Opportunity 3 - Partnerships and business attraction strategies -** Consider partnerships and incentives to attract office-based technology and innovation businesses, to locate in the Structure Plan Area. This has been successfully done for other industrial and R&D businesses in the NEIC, for example Moderna and HeartLabs at the Victorian Health Innovation Centre. This collaborative model is anticipated to remain instrumental in attracting anchor institutions and businesses to the precinct, thereby facilitating the clustering of smaller enterprises.
- **Opportunity 4 - Align with Monash University's long-term plans -** Achieving the education floorspace and synergies between key institutions and business will require further understanding of Monash University's long-term plans for growth on its Clayton Campus.

Ferntree Gully Road Industrial Area transition towards office and some higher value industrial uses. Focus offices near new Monash Town Centre

2 3 9

Monash University focus for future tertiary uses, new growth focused ideally toward Monash Town Centre and some office uses

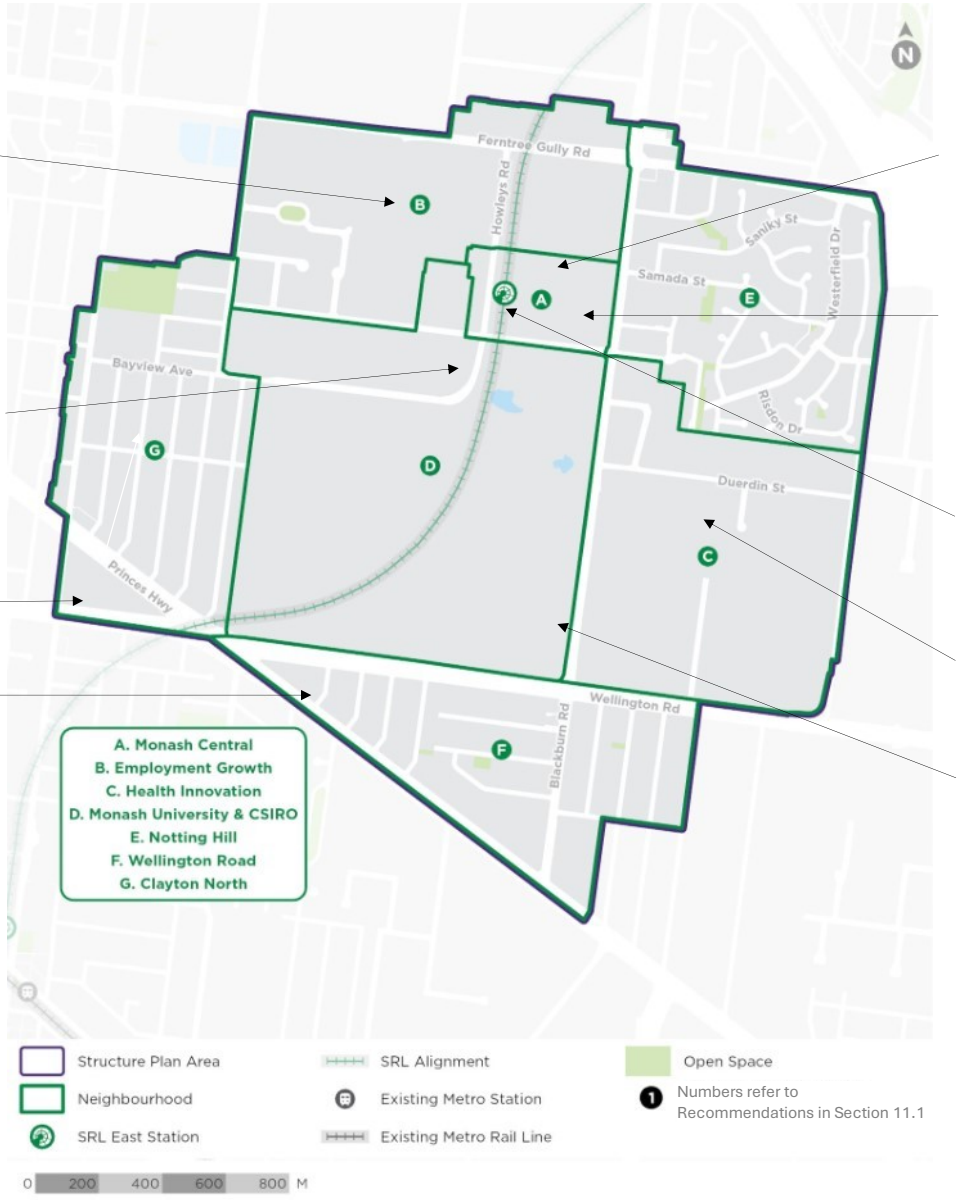
3 5

School education on existing education sites

6

Some provision for office and retail uses as part of mixed uses along Princes Hwy corridor

3 7



Focus higher density office spaces in and around new Monash Town Centre on locations with excellent public transport and amenities.

1

Provide a mix of retail, entertainment, health accommodation, and public uses to support growth of the new Monash Town Centre

4 7 8 11 12 15

Opportunity to incorporate residential development within the future mixed-use centre, to enable a livelier town centre environment and additional demand for services.

13 14

Infill office opportunities in Blackburn Road Industrial Area to support large R&D anchors

3 10

Potential expansion of Heart Hospital precinct with other health uses

4

LOCATION RECOMMENDATIONS FOR FUTURE EMPLOYMENT FLOORSPACE IN THE MONASH STRUCTURE PLAN AREA

1. Introduction

SRL is a transformational project that will help shape Melbourne's growth in the decades ahead. It will better connect Victorians to jobs, retail, education, health services and each other – and help Melbourne evolve into a 'city of centres'.

SRL will deliver a 90-kilometre rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport.

SRL East from Cheltenham to Box Hill will connect major employment, health, education and retail destinations in Melbourne's east and south east. Twin 26-kilometre tunnels will link priority growth suburbs in the municipalities of Bayside, Kingston, Monash and Whitehorse.

SRL East Draft Structure Plan (Structure Plan) Areas will surround the six new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

1.1 Purpose of this report

This report will inform the development of the Structure Plan to guide land use planning and development in the Monash Structure Plan Area.

The report assesses the economic and jobs growth potential of the Structure Plan Area, and to what extent the market is capable of providing the forecast employment floorspace. Issues and opportunities relating to employment floorspace in the Structure Plan Area are identified. It does this by:

- Examining the present condition of the local economy and consider its potential for growth going forward, taking into account its competitive strengths, weaknesses, opportunities, and challenges.
- Understanding recent and proposed employment-related development activity to assess if the market is capable of providing the projected demand for floorspace independently. Additionally, consider broader economic trends and their impact on activity centres.
- Identifying the amount of employment floorspace that will be required to realise projected employment, including the form/type of space.
- Providing a summary of the factors that Structure Plan controls should take into account to ensure the right amount and form of employment floorspace is delivered in appropriate locations.

1.2 Project context

Construction of the SRL East underground stations is underway at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill. This provides an opportunity to enhance the surrounding neighbourhoods. SRL East will support thriving and sustainable neighbourhoods and communities that offer diverse and affordable housing options, with easy access to jobs, transport networks, open space, and community facilities and services. Figure 1.1 shows SRL East in the context of the entire SRL project and Melbourne's rail network

A Monash Vision has been developed in consultation with the community and stakeholders for the Structure Plan Area and surrounds. The visions set out the long-term aspirations for these areas, ensuring they are ready to meet the needs of our growing population.

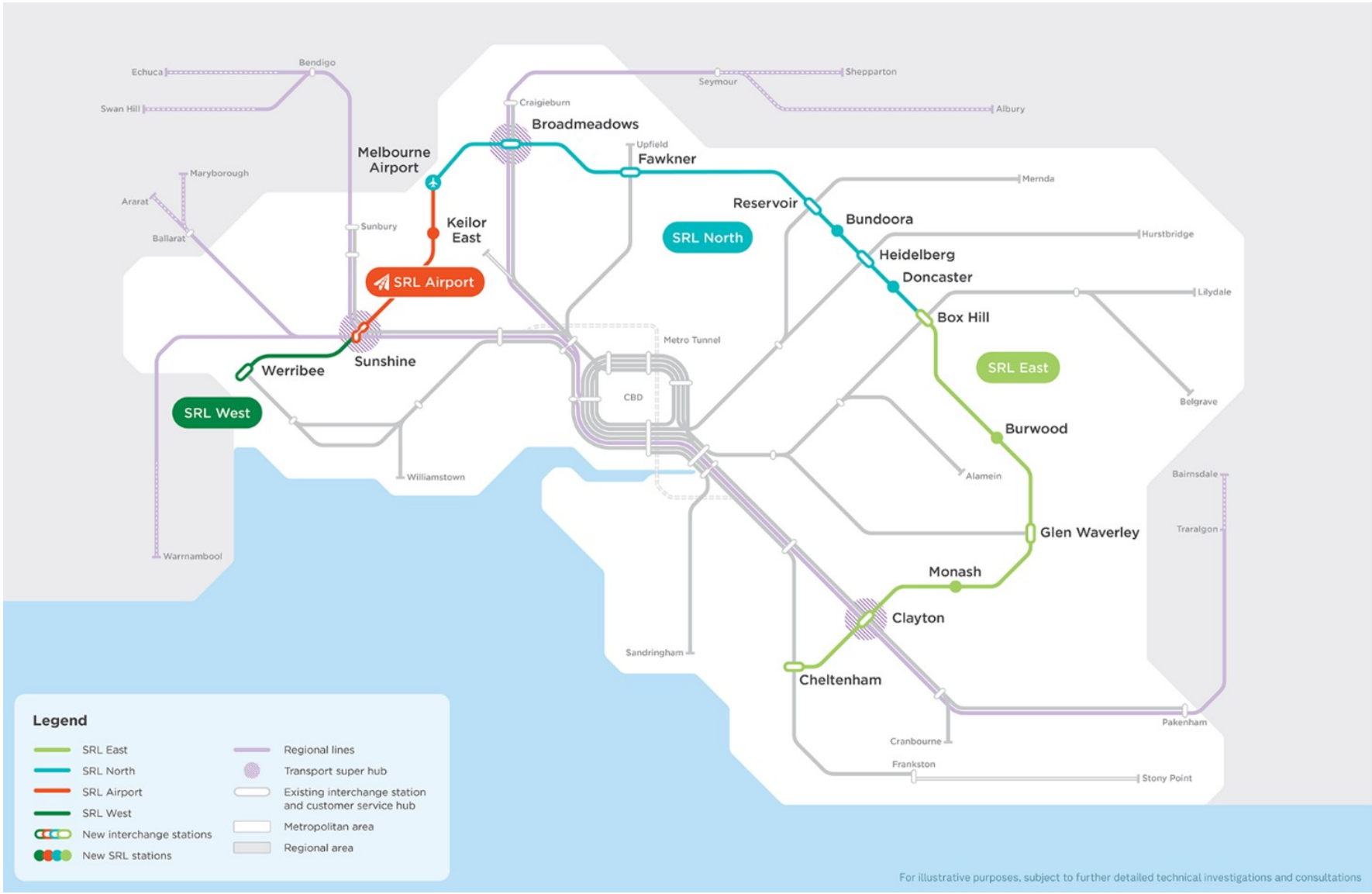


FIGURE 1.1 SUBURBAN RAIL LOOP

1.3 Structure planning for SRL East

Structure Plans have been prepared for defined areas surrounding the new SRL East stations to help deliver the Monash Vision developed for each SRL East neighbourhood.

The Structure Plans cover defined SRL East Structure Plan Areas that can support the most growth and change. These areas cover a walkable catchment that extends from the SRL station entrances. Additional places are included within each defined area as required to make planning guidance more robust and effective, and to align with each community's aspirations and current and future needs.

A Structure Plan is a blueprint to guide how an area develops and changes over a period of time. Structure Plans describe how future growth within the area will be managed in an appropriate and sustainable way to achieve social, economic and environmental objectives. The plans cover a wide range of matters, such as transport connections and car parking, housing and commercial development, community infrastructure, urban design, open space, water and energy management, climate resilience and sustainability.

By tailoring planning decisions to reflect the needs of a defined area, Structure Plans give effect to the policies and objectives set for these areas and cater for changing community needs. They also provide certainty for residents, businesses and developers by identifying the preferred locations and timing of future land uses, development and infrastructure provision.

Structure Plans take a flexible and responsive approach that enables places to evolve over time.

Planning scheme amendments will be required to implement the Structure Plans into the planning schemes of the cities of Bayside, Kingston, Monash and Whitehorse.

1.4 Structure of this report

Part A: Background

- Part A reviews Victorian and local government policies and strategies relating to employment growth and considers how development in the Structure Plan Area can contribute to achieving their objectives. An overview of existing economic features and jobs in the Structure Plan Area is provided, including recent and proposed employment-related development.

Part B: Economic outlook and potential

- Part B reviews the role of suburban employment hubs and the potential for growth in professional services jobs in the Structure Plan Area. The changing nature of work and jobs and the impacts on workplace types and locations is considered, along with the implications for planning future employment floorspace in the Structure Plan Area. The economic strengths and challenges of the Structure Plan Area are considered, and its long-term economic potential and growth is assessed.

Part C: Future employment floorspace demand

- Part C identifies which sectors are expected to generate the most jobs growth in the Structure Plan Area, and assesses the amount and form of floorspace needed to support this jobs growth, as well as the most appropriate locations for its development.

Part D: Summary and recommendations

- Part D summarises the findings of the assessment and provides recommendations to consider when developing the Structure Plan.

1.5 Data sources and definitions

The key data sources and definitions used in this analysis are outlined here:

- **Future employment demand** was assessed using employment projections for the Structure Plan Area which were derived from the CityPlan population and employment projections outlined in the Business and Investment Case (BIC) prepared for the SRL (August 2021). The CityPlan projections used in the BIC projections account for the expected overall growth of Melbourne and the transport interventions and precinct initiatives of SRL influence the distribution of population. That is, population growth isn't solely driven by SRL, rather SRL influences the distribution of growth.
- **Travel zones (TZNs)** are the unit of geography used by the Victorian Integrated Transport model (VITM) and is the base geography for the CityPlan model above. There are a total of around 7000 zones across Victoria.

- A **floorspace audit** was caried out to identify and categorise employment land in the Structure Plan Area. This process included review of several data sources (such as The Department of Energy, Environment and Climate Action (DEECA), Public Sector Mapping Agency (PSMA) and Space Syntax) to understand, for each building, the existing employment land use and estimate the amount of floorspace. This data set provided a baseline for future floorspace estimates and figures are in Gross Building Area (GBA).
- A further comprehensive **industrial land audit** was carried out to identify and categorise relevant industrial land uses within the boundaries of each Structure Plan. This process included a thorough examination of current occupants by analysing *Arealytics* data and other online datasets. Businesses were classified based on their industry, the nature of the business, and the typology of the space they occupied was determined.
- A job is defined as employment of all contract types including full-time, part-time and casual employment. The terms 'job' and 'workers' are used interchangeably in this report. To distinguish by industry, the following Australian and New Zealand Standard Industrial Classification (ANZSIC) Divisions have been summed under the following industry grouping used in this analysis:
  - **Professional Services**: 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
  - **Health:** Health Care and Social Assistance
  - **Education:** Education and Training
  - **Other Population Services:** Retail Trade; Accommodation and Food Services, Arts and Recreation Services; Construction, Other Services
  - **Industrial**: Agriculture, Forestry and Fishing; Mining; Manufacturing; Electricity, Gas, Water and Waste; Wholesale Trade; Transport, Postal and Warehousing.
- Employment is distributed among various land uses:
  - **Office:** Includes multi-storey office towers, campus style buildings and commercial tenants in shopping centres, mixed-use developments or along the street
  - **Health:** Includes hospitals, medical centres and health tenancies in shopping centres, mixed-use developments or along the street
  - **Education:** Includes schools and universities and education tenancies in shopping centres, mixed-use developments or along the street
  - **Retail:** Includes shopping centres, retail on high streets and standalone sites
  - **Public Use:** Includes courts, town halls, police stations, fire stations and the like
  - **Industrial:** Industrial uses in warehouse and factory typologies
  - **Entertainment / Recreation:** Includes structures in sporting contexts (such as club rooms, sports and recreation centres), bars or clubs, cinemas and other commercial entertainment (such as mini golf)
  - **Accommodation:** Includes hotels, serviced apartments and short-stay accommodation.
- The following floorspace measurements are used:
  - **Workspace ratio** is the average floorspace (sq.m) per employee
  - **Gross Building Area (GBA)** refers to the total floorspace of a building such as stairs, hallways and plant.

    GBA is used for the floorspace audit as the audit was undertaken using external building information, so no common spaces or otherwise unleasable spaces were removed for the audit.
  - **Gross Floor Area (GFA)** is the total area of all floors in a building, measured from the exterior walls, and generally excludes stairs and plant area
  - **Gross Leasable Area (GLA)** focuses on the portion of space available for lease to tenants, typically excluding common areas and utility spaces.

A comprehensive compilation of abbreviations, data sources and definitions, including conversion assumptions between GLA and GBA by floorspace type is provided in Appendix A.

1.6 Assumptions and limitations

The following assumptions and limitations apply to this assessment:

- The analysis focuses on a single potential population outcome and evaluates the housing requirements necessary to achieve that specific outcome. The projected year for employment floorspace need is 2041 as the emphasis for structure planning is 2041.
- The CityPlan employment projections are based on modelling which approximates of what can be expected in the real environment. The employment projections are best at representing strategic level demands, rather than for small areas. Notwithstanding this, there will usually be differences between forecasts and actual results because events and circumstances frequently do not occur as expected or predicted, and those differences may be material. As a strategic representation, CityPlan data may be less reliable as geographic areas become smaller or when the data is further divided, such as by industry.
- While it is generally appropriate to rely on CityPlan projections for the SRL East Structure Plan Areas at an aggregate level (e.g., total population, total jobs), caution should be exercised when further breaking down this data (e.g., population by age, jobs by industry). The implications of this for the Economic Profile is discussed further in Section 7.
- Retail is addressed in this report as a land use but is further examined in the *SRL East Structure Plan - Retail Assessment – Monash* report. Conclusions about retail floorspace demand and employment are based on the findings of that report.

More information about assumptions and limitations of this report is provided in Appendix A.

1.7 Interactions with other technical reports

This *SRL East Structure Plan – Economics Profile – Monash* report informs, or is informed by other reports prepared to guide the development of SRL East Structure Plans:

- *SRL East Housing Needs Assessment – Monash*: This report forecasts long-term housing needs in the Structure Plan Area, including the number, type and size of dwellings. Employment uses and housing need to be delivered in an integrated way, resulting in a need to understand anticipated economic outcomes and the consequences for housing delivery.
- *SRL East Structure Plan - Retail Assessment – Monash:* This report forecasts long-term retail demand in the Structure Plan Area, and the amount and type of retail floorspace needed to meet the demand. Retail space needs to be directed to appropriate areas to support the future population and workforce.
- *SRL East Structure Plan - Land Use Scenario and Capacity Assessment (LUSCA):* This analysis tests the capacity of the SRL East Structure Plan Areas to accommodate projected population and employment floorspace at 2041. The housing floorspace demand derived from this report is an input to LUSCA.
- *SRL East Structure Plan - Community Infrastructure Needs Assessment - Monash:* This will provide an understanding of the community infrastructure needs associated with the growth and renewal of the SRL East Structure Plan Areas to 2041, recommendations for future community infrastructure provision priorities and potential sites to accommodate them.
- *SRL East Structure Plan – Transport Technical Report - Monash:* Outlines how the transport network, across all modes, will support the Structure Planning process. The scale, location and nature of future employment uses, informed by this report, influences the transport requirements. The appended Precinct Parking Plan recommends parking management tools to support the development of the SRL East Structure Plan Areas and support implementing a schedule for the Parking Overlay. The scale, location and nature of employment uses, informed by this report, influences the parking requirements.

1.8 Structure Plan Area

1.8.1 MONASH STRUCTURE PLAN AREA

The Monash Structure Plan Area surrounds the SRL station at Monash in the City of Monash.

It is generally bordered by Wellington Road and Princes Highway to the south, Beddoe Avenue and Boundary Road to the west, land north of Ferntree Gully Road to the north and an existing drainage channel, which forms a natural barrier to properties to the east.

Monash University Clayton campus is located in the Monash Structure Plan Area.

The Structure Plan Area is shown in Figure 1.2. Current and projected resident and worker populations are shown below in Table 1.1.

The Structure Plan Area is divided into a series of neighbourhoods. These neighbourhoods represent areas with similar land use mix and are referenced through the structure planning process.

TABLE 1.1 RESIDENT AND WORKER POPULATION IN 2021 AND PROJECTED TO 2041, MONASH STRUCTURE PLAN AREA

POPULATION TYPE	2021	2041
Workers	20,900	50,000
Residents	10,000	17,900

Source: ABS Census for Population (residents) and Census for Population Aged 15+ (workers). Business and Investment Case for projections out to 2041.

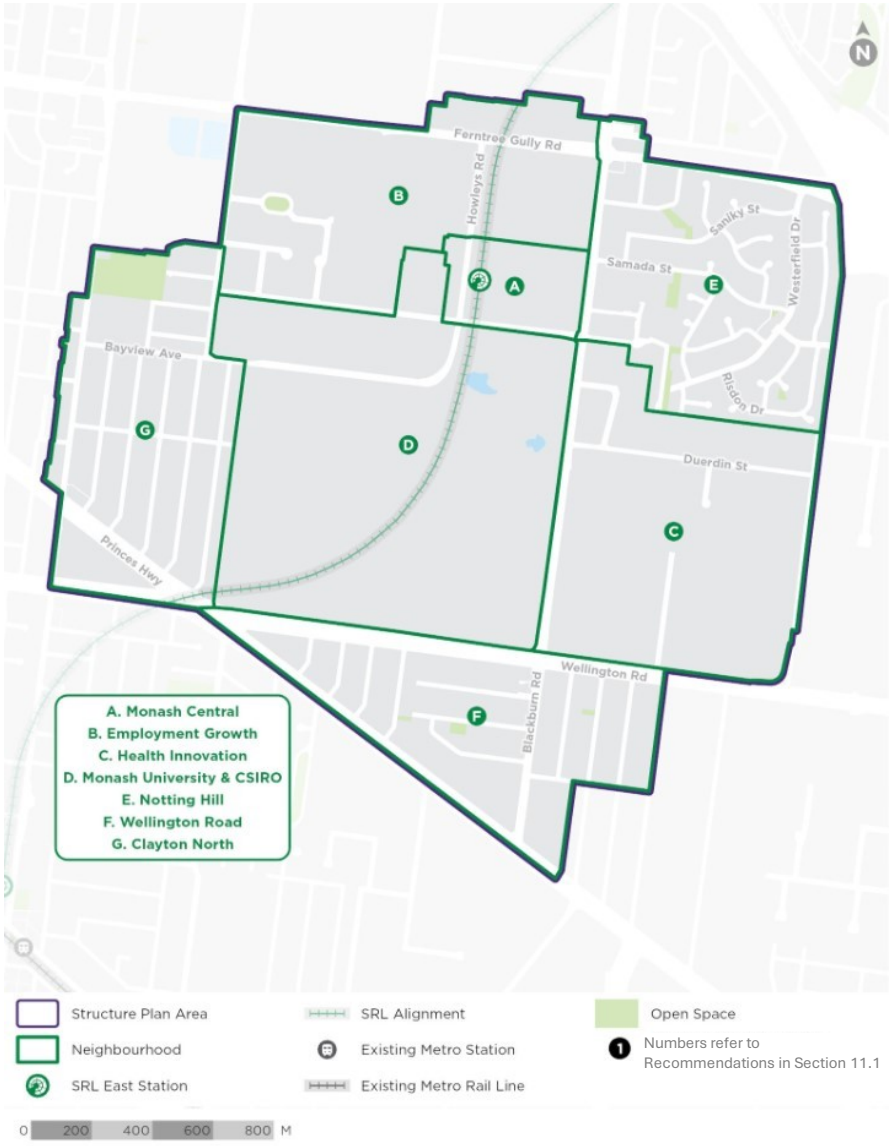


FIGURE 1.2 MONASH STRUCTURE PLAN AREA

Source: AJM JV

1.8.2 BENCHMARK AREAS

For the purposes of benchmarking, data was also collected for the following areas:

- **Greater Melbourne** – as defined by the Australian Bureau of Statistics (ABS) Greater Capital City Statistical Areas boundary.
- **South East Region** – which comprises the following local government areas: Bayside, Glen Eira, Boroondara, Greater Dandenong, Kingston, Knox, Manningham, Maroondah, Monash, Whitehorse, and Stonnington.

The South East Region is shown in Figure 1.3

Throughout the report data is presented for the Structure Plan Area alongside data for the South East Region and Greater Melbourne for context.

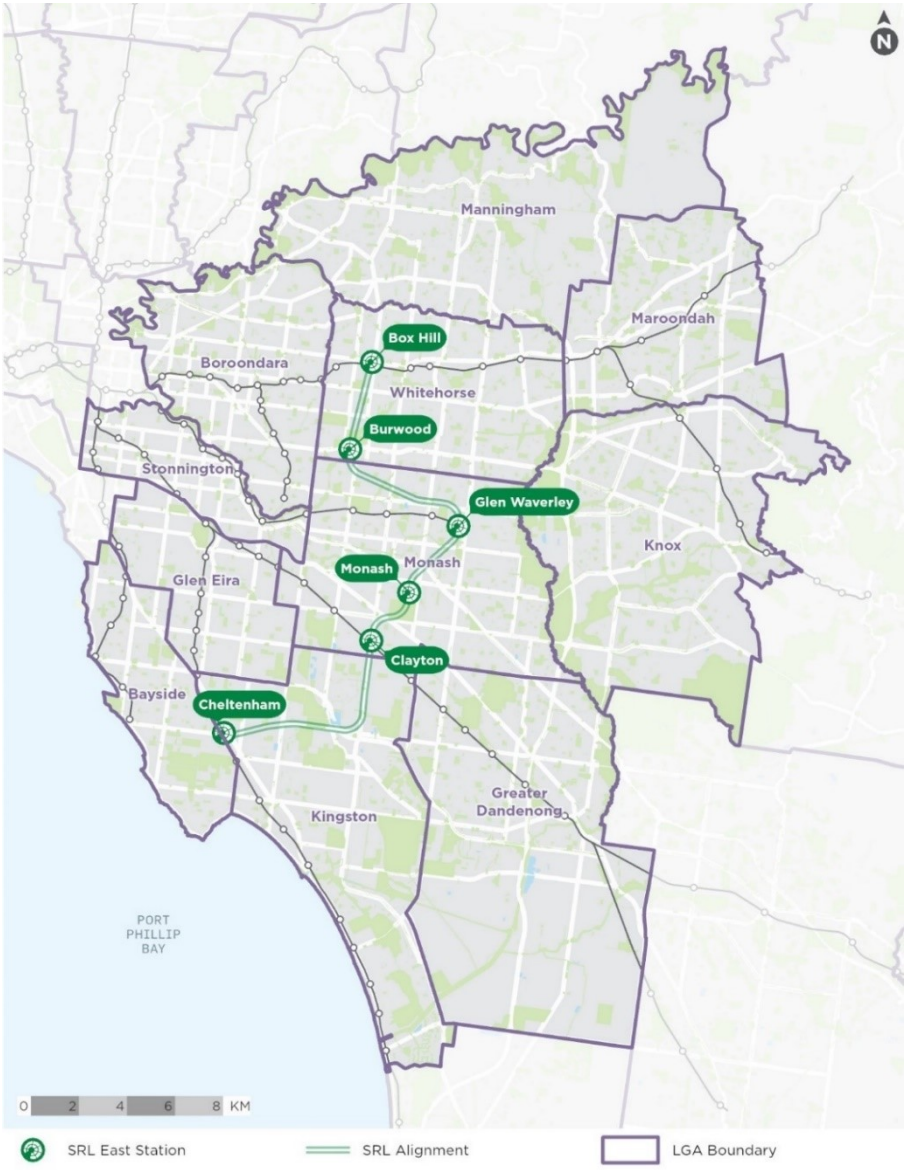


FIGURE 1.3 SOUTH EAST REGION

Source: AJM JV

Part A: Background

Part A includes:

- **Section 2** summarises the strategic context. It reviews Victorian and local government policies and strategies relating to employment growth, and considers how development in the Structure Plan Area can contribute to achieving their objectives.
- **Section 3** provides an overview of existing economic features and jobs in the Structure Plan Area, including recent and proposed employment-related development.

2. Strategic Context

This section summarises Victorian and local government policies and strategies relating to employment growth and considers how development in the Structure Plan Area can contribute to achieving their objectives.

2.1 Victorian government policy

2.1.1 PLAN MELBOURNE 2017-2050

Plan Melbourne 2017–2050 is the Victorian Government's long-term planning strategy, guiding the way the city will grow and change to 2050.

It provides an integrated land use, infrastructure and transport planning strategy to support population and jobs growth, while building on Melbourne's legacy of distinctiveness, liveability, and sustainability.

A primary objective of Plan Melbourne is to **promote employment growth in areas beyond the central city**, fostering a city structure that enhances Melbourne's competitiveness in attracting jobs and investments.

The development of National Employment and Innovation Clusters (NEICs), Metropolitan Activity Centres (MACs), and Major Activity Centres is intended to facilitate employment growth outside the central city:

> *To grow jobs and create accessible, affordable and attractive neighbourhoods, Melbourne needs to take advantage of the land it has available for renewal in the city and suburbs. Increasing the number and diversity of jobs closer to where people live—in places such as suburban employment clusters, health and education precincts and industrial precincts—will help make Melbourne more productive and competitive.*[1]

The *Plan Melbourne addendum 2019* (*Addendum*) updated Melbourne's projected population, housing and employment growth. The Addendum incorporates Stage 1 of SRL (SRL East). The Addendum recognises the role of the SRL in connecting Melbourne's major employment, health and innovation precincts, and supporting the development of 20-minute neighbourhoods.

2.1.1.1 National Employment and Innovation Clusters (NEIC)

Plan Melbourne provides the following general description of NEICs:

Designated concentrations of employment distinguished by a strong core of nationally significant knowledge sector businesses and institutions that make a major contribution to the national economy and Melbourne's positioning in the global economy.

The Victorian Government acknowledges that the concentration of linked businesses and institutions within each NEIC across Melbourne, make a crucial contribution to the Victorian economy. They are strengthened by strong public transport, and capacity to facilitate future growth in jobs and housing.

Monash is designated as a NEIC and will play a crucial role in the coming decades stimulating economic activity for the region as one of the largest concentration of employment outside of the Melbourne CBD.

The cluster has a critical mass education, health and research institutions, creating a unique environment for research and commercial facilities. Key contributing institutions within the Monash NEIC include Monash University, The Australian Synchrotron, Monash Medical Centre and CSIRO.

2.1.1.2 Activity Centres

Plan Melbourne emphasises the crucial role of activity centres in enhancing Melbourne's economic performance.

Activity centres are classified into three main types: metropolitan activity centres, major activity centres and neighbourhood activity centres.

Plan Melbourne provides the following general description of activity centres:

Areas that provide a focus for services, employment, housing, transport and social interaction. They range in size and intensity of use from smaller neighbourhood centres to major suburban centres and larger metropolitan centres.

[1] Department of Transport and Planning, (2017) Plan Melbourne 2017-2050 https://www.planning.vic.gov.au/guides-and-resources/strategies-and-initiatives/plan-melbourne, p. 8

Recognised as primary hubs catering to regional catchments, MACs are envisioned to serve as focal points for public transport services and play a major service delivery role with a range of major health, retail, community, government, entertainment and cultural facilities.

The Victorian Government acknowledges the crucial role of MACs in ensuring that residents throughout Greater Melbourne can access a diverse array of services amid the city's ongoing expansion. MACs are poised to be significant contributors to job opportunities, various activities, and housing options, outside the CBD.

Plan Melbourne also identifies that activity centres should accommodate an increasingly wide mix of land uses:

All activity centres have the capacity to continue to grow and diversify the range of activities they offer. Diversification will give communities access to a wide range of goods and services, provide local employment and support local economies and the development of 20-minute neighbourhoods.

The Monash Structure Plan Area does not currently have a designated Major Activity Centre.

2.1.1.3 Health and/or Education Precincts

Plan Melbourne also identifies state-significant health and/or education precincts for further services and jobs growth.

Plan Melbourne seeks to reinforce the economic functions of these precincts and states that 'these precincts stimulate innovation, create employment and are of fundamental importance to the emerging knowledge economy and surrounding communities'.

Monash is identified as a health and education precinct owing to the presence of the Monash University Precinct and links to the Monash Medical Centre in the neighbouring Clayton Structure Plan Area. The Monash Structure Plan Area also now includes the Heart Hospital.

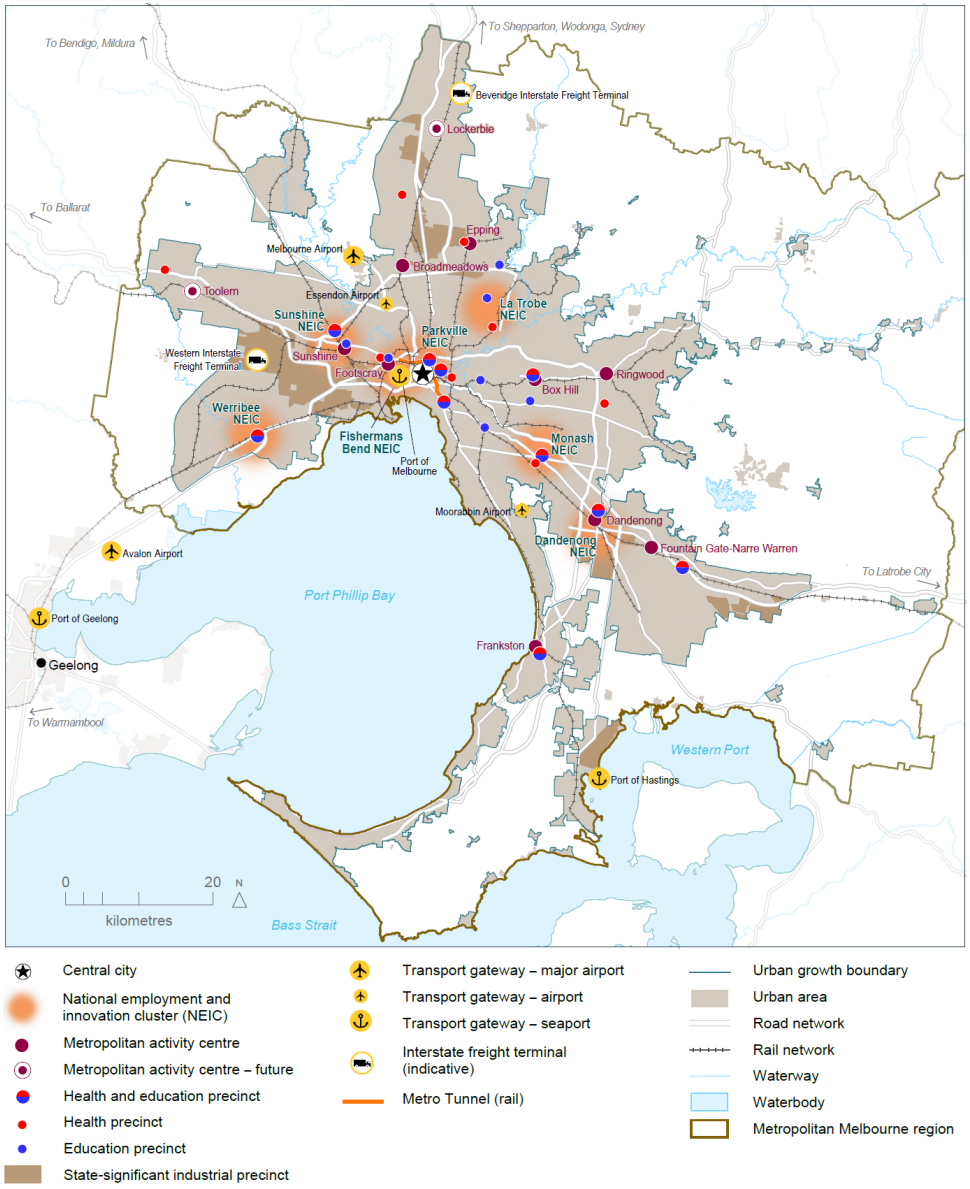


FIGURE 2.1 JOBS AND INVESTMENT ACROSS MELBOURNE

Source: Department of Transport and Planning

2.1.1.4 The 20-Minute Neighbourhood

To create a healthier and more inclusive city, Plan Melbourne adopts the principle of 20-minute neighbourhoods. The 20-rminute neighbourhood is all about 'living locally', giving people the ability to meet most of their everyday needs within a walkable distance, generally around 800 metres.

Features of a 20-minute neighbourhood include places to study and work, as shown in Figure 2.2.

Plan Melbourne also states that *'due to the specialised and diverse nature of many people's work, access to employment will often be outside the 20-minute neighbourhood'.*[2] Nonetheless, there is still a preference to maximise employment opportunities closer to where people live.

FIGURE 2.2 FEATURES OF A 20-MINUTE NEIGHBOURHOOD

Source: Department Transport and Planning

2.1.2 MELBOURNE INDUSTRIAL AND COMMERCIAL LAND USE PLAN

The *Melbourne Industrial and Commercial Land Use Plan (MICLUP) (2020)* provides guidance for managing employment land across metropolitan Melbourne. It builds on Plan Melbourne and establishes a planning framework to support the Victorian and local governments to plan more effectively for future employment and industry needs.

The MICLUP aims to support industrial and commercial use of land by:

1. Identifying and setting aside adequate long-term industrial and commercial land supply to support future industry and business growth
2. Recognising and retaining industrial and commercial areas that provide an ongoing economic and employment contribution to local communities, regions and the state as a critical economic resource
3. Providing clear direction on locations where growth should occur and protecting state-significant industrial precincts from incompatible land uses to allow for long term investment and future growth
4. Supporting industry and business to innovate and grow in identified areas.

MICLUP identifies and categorises employment land into 'industrial' or 'commercial' land across a designated hierarchy where employment land uses are further classified into precincts of state, regional or local significance. These classifications reflect the policy objectives for the area or precinct and assist with identifying land that should be retained for current industrial or employment uses, or considered for alternative uses.

The existing activity centre classification is used as a basis for classifying the role and purpose of commercial land.

MICLUP identifies the Monash NEIC and designates the industrial precincts within the Structure Plan Area (and those extending south and east) as Regionally Significant Industrial Land. The limited areas of commercial land in the Structure Plan Area are identified as Local Commercial Areas.

[2] Department of Transport and Planning, (2017) p. 99

2.1.3 MELBOURNE'S FUTURE PLANNING FRAMEWORK

In 2021, six region-specific Draft Land Use Framework Plans were released to guide the application of Plan Melbourne at a regional level. The metropolitan region relevant to Monash is the Eastern Metro region. An earlier framework plan was also developed specifically for the Monash NEIC.

2.1.3.1 Draft Eastern Metro Land Use Framework Plan

The Eastern Metro region comprises the municipalities of Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges.

The Eastern Metro Region has an established network of activity centres, linear corridors based along key transport routes for residential and employment growth, and urban renewal areas that will provide opportunities to increase the supply of housing.

This framework identifies that SRL East will accelerate jobs and investment in the Eastern Metro Region:

> *SRL East (Cheltenham to Box Hill) will facilitate growth and diversity within station precincts and open up employment opportunities by connecting established precincts such as the Monash National Employment and Innovation Cluster (NEIC), Deakin University, Box Hill Metropolitan Activity Centre, and Glen Waverley and Clayton major activity centres. The north-south alignment will increase access to jobs and services and increase the reach of businesses to attract workers from across the region and beyond.*

The framework flags that a significant amount of additional commercial floorspace will be needed across the Eastern Metro Region. With no future commercial areas identified, the Eastern Metro Region must rezone, consolidate or intensify land uses to accommodate future requirements. A significant proportion of the region's recent office development has been in freestanding business or office parks. There is a need to identify and supply additional commercial floorspace in designated activity centres close to public transport, including underutilised land and surplus state and local government land.

The framework acknowledges that housing development must be balanced with protection of employment uses particularly around regionally-significant industrial precincts, and the Monash NEIC.

The framework identifies the following economic opportunities for Monash:

- Support significant growth and investment in public transport, health, education and medium to higher-density residential development.
- Facilitate the development of the Monash NEIC as a globally recognised health, education, technology and advanced manufacturing centre.
- Ensure the strong and health and education presence in the region continues to provide local jobs.

The following strategies relate to employment outcomes in the Monash Structure Plan Area:

- **Strategy 1:** Strengthen Monash NEIC as a pre-eminent healthcare, education, technology, advanced manufacturing and health research provider and activity cluster in the Eastern Metro Region.
- **Strategy 2:** Facilitate land use and economic intensification of the Monash NEIC to leverage transport infrastructure investment and improved public transport connectivity, including SRL.
- **Strategy 3:** Support significant land use change and higher-density development in SRL precincts.
- **Strategy 4:** Encourage investment that will attract major anchor tenants, start-ups and specialised labour in the region's health and/or education precincts.
- **Strategy 5:** Support convenience retail, service and business uses in health and/or education precincts and SRL precincts to provide ancillary business opportunities and amenities.
- **Strategy 6:** Improve transport connections between health and/or education precincts in the Eastern Metro Region, particularly with north-south connectivity.
- **Strategy 10:** Maximise land use and economic intensification around SRL precincts, particularly those co-located with activity centres, leveraging public transport improvements.
- **Strategy 15:** Maximise investment opportunities for start-ups and/or creative industries in the Bayswater Business Precinct, Scoresby-Rowville Industrial

precinct and Clayton-Mulgrave Industrial precinct (within Monash NEIC) and across the activity centre network to support innovation and collaboration.

2.1.3.2 Monash National Employment and Innovation Cluster: Draft Framework Plan

Also applicable to the Monash Precinct, is the Monash NEIC Draft Framework Plan March 2017, which provides a vision for how the NEIC can capitalise on its significant employment opportunity in the coming decades. This plan was prepared before SRL was announced. Figure 2.3 shows the geographical expanse of the Monash NEIC, which extends well beyond the area of Monash Structure Plan Area.

This document, prepared by the Victorian Planning Authority (VPA), sets out a range of strategic property outcomes to achieve long term vision for Monash NEIC, as:

The Monash National Employment and Innovation Cluster will transform and modernise over the next three decades as a connected and exciting place for employment, education, innovation, leading-edge technology and research. It will be positioned as a globally competitive value-creating economy[3].

The Draft Framework Plan sets five strategic outcomes, which are:

1. Grow employment and innovation in the health, education and research precinct.
2. Boost jobs growth and develop attractive areas with business town centres.
3. Transform the transport network to support economic growth of the cluster.
4. Develop public open space and community infrastructure.
5. Plan and deliver urban renewal projects and strategic sites.

FIGURE 2.3 MONASH NEIC CLUSTER FRAMEWORK PLAN

Source: Victorian Planning Authority

[3] VPA Monash NEIC March 2017 p4

2.2 Local government policy

The Monash City Council has produced two key policy documents to guide development in the council area, these being:

- Monash Council Plan 2021-2025
- Monash Economic Development Strategy & Action Plan 2018

The Monash Planning Scheme and Monash Industrial Land Strategy (2014) also contains various clauses relating to economic development and industrial land within the Structure Plan Area.

2.2.1 CITY OF MONASH COUNCIL PLAN

The Monash Council Plan articulates the strategic priorities for the council area over the medium term and encompasses four key pillars designed to ensure that Monash is a place that is sustainable, inclusive, an enhanced experience and has good governance. With respect to how the Council anticipates to improve the employment and economic diversity of the area**, the plan states that it will support businesses and investment to drive jobs growth to create a sustainable economy for the future**. Other priorities include improvements to public spaces and local employment through revitalising employment hubs, activity centres and neighbourhood shops.

2.2.2 MONASH ECONOMIC DEVELOPMENT STRATEGY & ACTION PLAN

Aligned with the Council Plan the Monash Economic Development Strategy & Action Plan constructs a framework that consolidates Monash's economic role as an integral location for research, health, education, and innovation within Victoria. **Key strategic areas include:**

- Support for new businesses, allowing industries to grow and prosper.
- The creation of diverse employment precincts that are connected and integrated to other activity centres in Melbourne, offering a range of opportunities.
- Facilitating economic growth and prosperity through diversity of collaboration and innovation.
- Building initiatives that will attract investment, industry leaders, innovators, and emerging talent.

Each of these key areas are underpinned by various objectives to maximise the City of Monash's contribution to Victoria, particularly in knowledge intensive industries.

2.2.3 MONASH PLANNING SCHEME

The Monash Planning Scheme reinforces the role that Monash, particularly the 'Monash Technology Precinct', plays in driving economic activity in Melbourne's South East. Importantly, it recognises the flow on effects that employment in knowledge-intensive industries can create for the wider community, and in attracting further businesses to the area.

The following clauses are discussed with respect to economic development:

- **Clause 17.01-1R Diversified economy- Metropolitan Melbourne-** this clause highlights the role of the National Employment and Innovation Clusters (NEICs, such as the Monash NEIC) in supporting the long term economic prosperity of Metropolitan Melbourne.
- **Clause 17.01-L Diversified economy-** this clause aims to revitalise employment areas and ensure that new development is of a high standard.
- **Clause 17.01-2S Innovation and Research-** this clause seeks to create opportunity for innovation and the knowledge economy within existing and emerging industries, research and education.
- **Clause** 17.01-2L Monash Technology Precinct- this policy applies to land within the Monash Technology Precinct (MTP) (refer map in Figure 2.4). It aims to reinforce the role of the MTP as a key strategic location for high technology, research and development industry. It also aims to promote a high level of built form amenity that reinforces the Precinct's significance on a local, regional, national and international scale and can assist in attracting new business investment to the Precinct. Specific strategies of note are:
  - » Encourage technology and research and development uses that can extend and reinforce the linkages between the Precinct and Monash University, the Monash Medical Centre, the Synchrotron and other tertiary and research institutes.

» Encourage and retain small and medium-sized business, especially those with a primary focus on research and technology.

» Encourage service orientated and supporting businesses that contribute to economic development, employment opportunities and support the technology and research and development businesses/institutions of the Precinct even though they may not be technology-oriented.

» Discourage uses that undermine the primary economic function of the Precinct or that compete with activity centres.

» Encourage development within the Precinct that balances the needs of existing industrial land uses and the demand for office and high technology land uses by limiting new office development to areas where there is substantial existing or approved industrial components.

- **Clause 17.03-3R Regionally significant industrial land- Metropolitan Melbourne- Eastern Metro Region-** this clause directs that industrial land at Clayton-Mulgrave should be protected by retaining existing industrial zoned land predominantly for industrial uses and discouraging non-industrial land uses and subdivision that would lead to the creation of small lots.

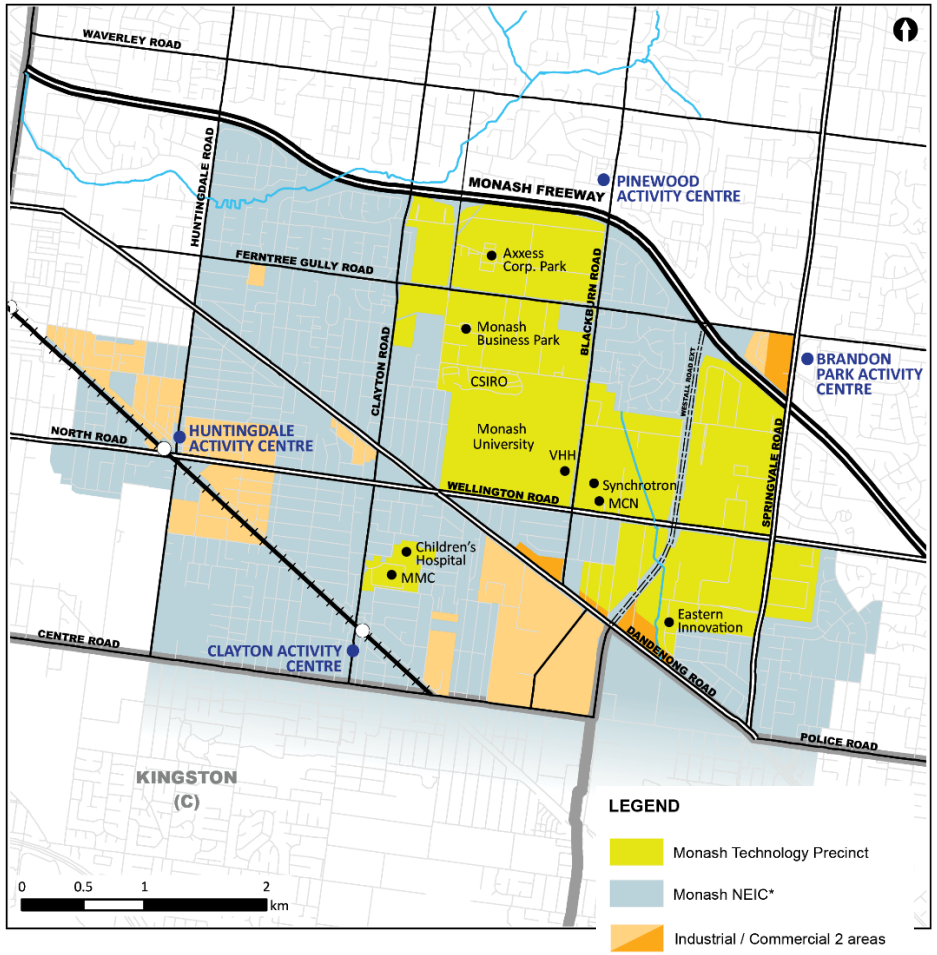


FIGURE 2.4 MONASH TECHNOLOGY PRECINCT

Source: Monash Planning Scheme, Clause 17.01-2L

2.2.4 MONASH INDUSTRIAL LAND USE STRATEGY

The *Monash Industrial Land Use Strategy* provides strategic direction to support the future planning and development of industrial land within the municipality and includes the assessment of 28 industrial precincts. The scope of this strategy excluded land contained within the Monash Technology Precinct (MTP) as the strategic direction for the MTP had already been well established from previous strategies studies that have been undertaken and implemented in the Monash Planning Scheme (Clause 22.02 – Monash Technology Precinct Policy).

2.3 Implications for Monash Structure Plan

SRL East will contribute to achieving the objectives of Victorian and local government policies and strategies relating to employment growth. Key themes across policy include the following:

- The Monash Structure Plan Area is integral to Monash National Employment and Innovation Cluster (NEIC) which is a 'nationally significant knowledge sector businesses and institutions that make a major contribution to the national economy and Melbourne's positioning in the global economy[4]'. It is anchored by the Monash University and a concentration of related businesses and institutions, which collectively make a significant contribution to the Victorian economy.
- Increasing employment opportunities outside the Melbourne CBD is a policy priority at both state and local levels. As a NEIC, Monash will play a crucial role in the coming decades stimulating economic activity for the region as one of the largest concentration of employment outside of the Melbourne CBD. With SRL East enhancing accessibility to the heart of the NEIC, structure planning can support the delivery of more employment opportunities.
- Local and regional policy documents consistently recognise Monash's significant role in delivering jobs to the surrounding region. Key to this is growth in employment and innovation in the health, education and research precinct. The Monash Technology Precinct, as defined by the Monash Planning Scheme (most of which is within the Monash Structure Plan Area), is identified as the primary strategic location for high level technology research and development initiatives.

[4]Page 139, Plan Melbourne 2017-2050

3. Existing economic features

This section provides a snapshot of the current employment landscape and significant economic assets in the area, along with an overview of recent employment-related developments.

3.1 Employment generators

The key employment generators within the Monash Structure Plan Area are shown on the map below and include:

1. Monash University is a globally recognised tertiary institution, currently ranked in the top 50 Universities worldwide. The Clayton campus within the Monash Structure Plan area had over 49,000 students in 2022[5] with staff across 10 faculties.
2. There are several business parks along Ferntree Gully Road. Ferntree Business Park contains several 4-5 storey office buildings within a business park environment, home to national and international businesses such as Schneider Electric, Drager, Canon and Olympus. Omnico Business Centre sits further west and has a series of one and two level structures housing a number of commercial and retail tenancies.
3. Light industrial uses are clustered in two pockets. The Ferntree Gully Road Industrial Areas are north of Normanby Road where the SRL East station will be located. There is also a relatively significant amount of smaller-lot light industrial in this area, including automotive uses. The Blackburn Road Industrial Area extends east from Blackburn Road north of Wellington Road. Although it includes significant facilities such as the Australian Synchrotron (discussed below), there is a mix of small industrial premises, large distribution centres and business parks. These areas contain a diverse range of research, development and higher tech manufacturing.
4. A cluster of major institutional uses around Blackburn Road, just north of Wellington Road. These include the recently constructed Victorian Heart Hospital, the Australian Synchrotron which is a nationally significant research facility, the Melbourne Centre for Nanofabrication, and the Moderna mRNA Vaccine Manufacturing Facility which will open in the second half of 2024.
5. The frontage of the western area to Dandenong Road includes a mix of large format homemaker retail, showrooms and car dealerships.
6. There are no defined major activity centres within the Monash Structure Plan Area. Some retail and recreation uses are within the Monash University site, while within the recently built mixed-use development at M-City provides a mix of retail (including Kmart and a Woolworths supermarket), dining and cinemas integrated with three residential towers, office space and a hotel.
7. Other major institutions include the CSIRO which holds a large site between the Ferntree Gully Road Industrial Area and the Monash University Clayton campus, and the Melbourne Centre for Nanofabrication that is just south of the Australian Synchrotron before Wellington Road.

These employment locations are shown in Figure 3.1. Information on recent and pipeline developments with related employment growth is provided in Section 3.6.

The Monash Technology Precinct is a large employment hub of specialised scientific, research, and innovation entities around the Monash NEIC. These businesses share common themes of global technologies, manufacturing, health, sustainable development, and education. The organisation's network includes over 20,000 businesses, Monash University, world-leading research organisations, and a wide range of enterprises. Figure 3.2 illustrates the diversity and distribution of businesses within the Precinct. The Monash Technology Precinct is supported by networking, industry and collaboration groups such as the Monash Precinct Network.

[5] City of Monash Economic Profile 2023, page 8

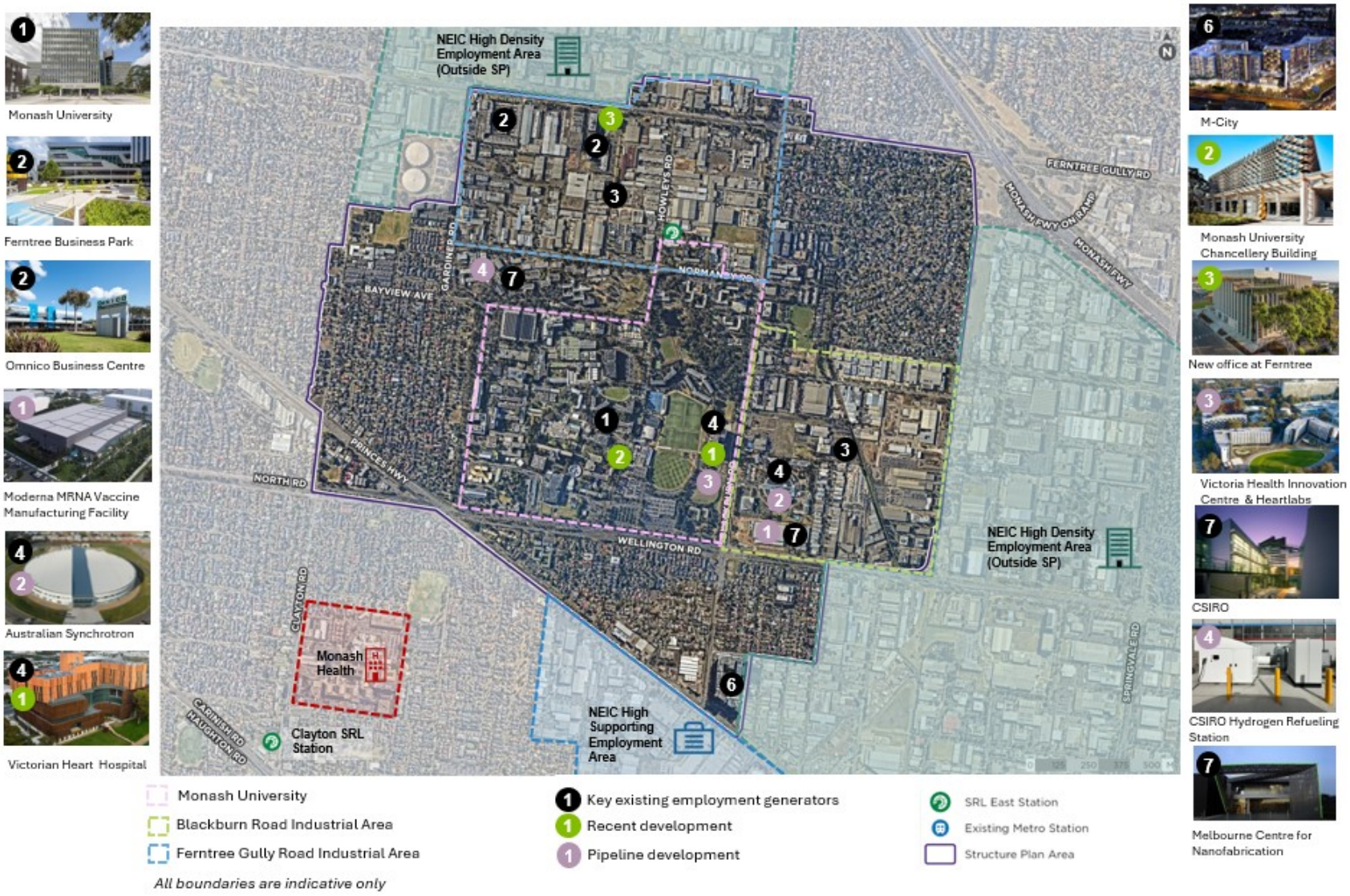


FIGURE 3.1 EXISTING EMPLOYMENT LOCATIONS AND FUTURE SUPPLY, MONASH STRUCTURE PLAN AREA [6]

Source: AJM JV

[6] Note: Numbering for existing employment refers to numbers used on previous page (e.g. Monash University buildings are marked '1' and is the first dot point on the previous page). Numbers for proposed and pipeline are ordered sequentially within the map and do not refer to existing numbers.

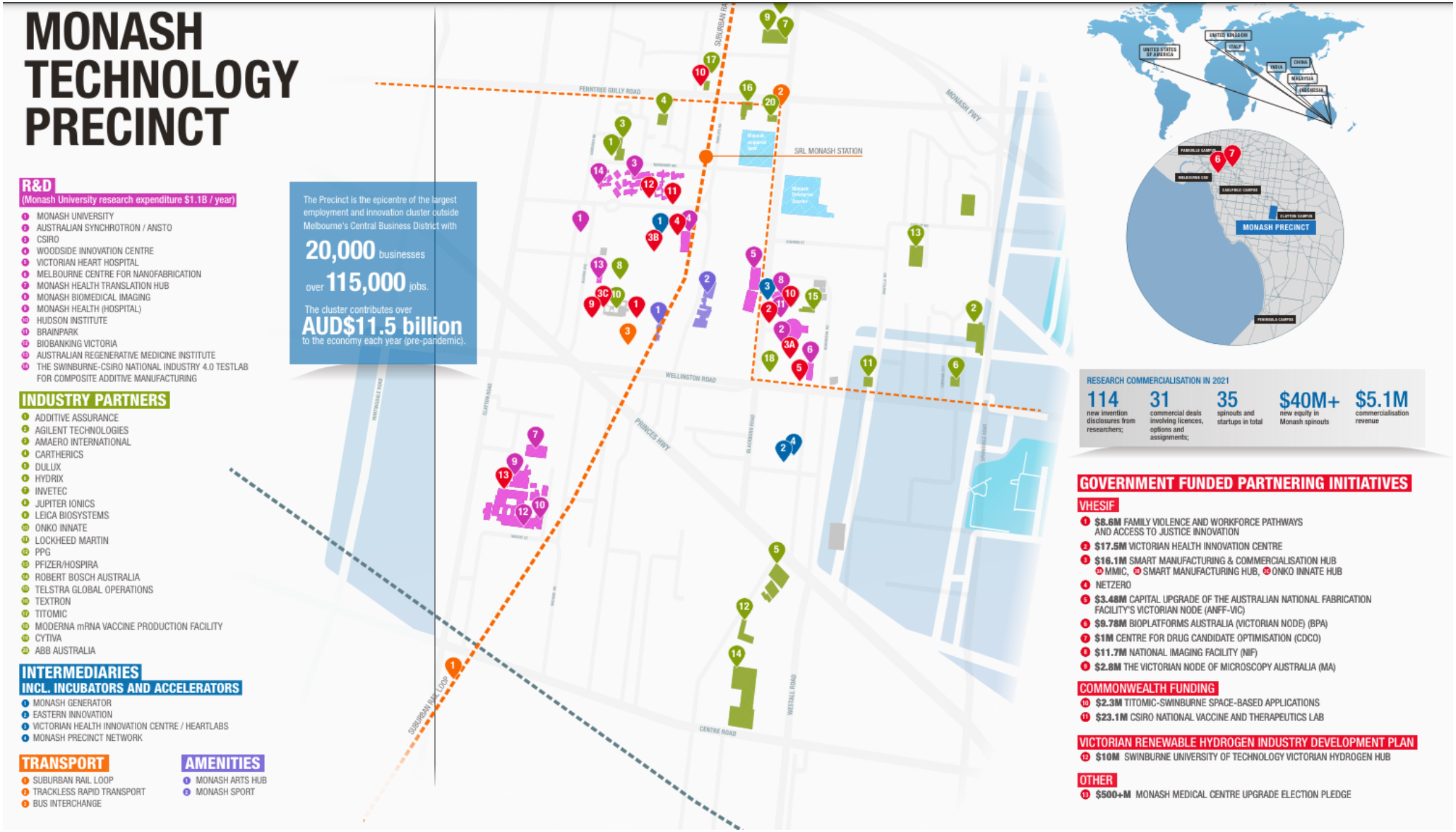


FIGURE 3.2 MONASH TECHNOLOGY PRECINCT

Source: Monash University

3.2 Economic snapshot

An economic snapshot of the Monash Structure Plan Area is shown in Figure 3.3. The Structure Plan Area hosts just under 21,000 workers which is more than double the number of local residents at 9800. Monash's workforce contributes approximately around $137.3 billion to the Victorian economy annually. Over the past decade, job growth has been solid at 3.2% per year annum, adding about 560 workers annually. There are fifteen large businesses with over 200 employees, likely to be education and industrial. This number has increased dramatically over the last decade. Business formation has grown at around 3% per year, mainly driven by small to medium- sized businesses. Further details are provided in Appendix B.

FIGURE 3.3 ECONOMIC SNAPSHOT MONASH STRUCTURE PLAN AREA

Source: Cordell Connect data for employment pipeline. Job and resident data from ABS Census 2011 and 2021. Business data excludes non-employing businesses, for years 2013 and 2023. ABS Business Counts. Economic value add data for 2021 from REMPLAN.

**Refer to section 3.7 for further information on the employment floorspace pipeline.*

3.3 Detailed industry breakdown

The Monash industry profile is summarised in Figure 3.4 and Figure 3.5. The Monash Structure Plan Area comprised of 10,600 workers in 2021, compared to 8800 in 2011. The key industry categories are Education and Training, Professional, Scientific and Technical Services and Construction. These are closely tied to Monash University and the expansive industrial and commercial areas. Employment data presented below excludes the Victorian Heart Hospital, which opened in 2021 after the Census and has around 850 workers. More details are provided in Appendix B.

Top Industries by Volume of Workers, 2021

1	Education & Training
2	Professional, Scientific and Technical Services
3	Construction

Top Industries by Jobs Growth, 2011-2021

1	Education & Training
2	Construction
3	Professional, Scientific and Technical Services

Bottom Industries by Jobs Growth, 2011-202

1	Manufacturing
2	Information and Media Telecommunication
3	Wholesale Trade

Top Industry Specialisations, LQ 2021[7]

1	Education and Training
2	Mining[8]
3	Information and Media Telecommunications

FIGURE 3.4 MONASH INDUSTRY SUMMARY, 2011 – 2021

FIGURE 3.5 MONASH INDUSTRY PROFILE, 2011 - 2021

**LQ refers to Location Quotient, that is the proportion of the target geography jobs, Glen Waverley, over the proportion of jobs in a benchmark geography, in this instance Greater Melbourne. For example, an LQ of 1 indicates that the target geography has the same proportion of an industry as the benchmark. LQ's below 0.8 indicates a relatively low reliance on that industry, whilst an LQ above 1.[2] indicates a specialisation.*

Source: ABS Census of Population Aged 15+ [2011 & 2021]

[7] *Note Greater Melbourne has a very low Mining proportion overall and Mining overall is not a large employer by volume in Monash SP.*

3.4 Worker snapshot

Figure 3.6 provides a snapshot of workers in the Monash Structure Plan Area and compares them to Greater Melbourne. Monash has a highly-skilled workforce, with 58% having a bachelor degree or above and 79% working in white-collar jobs. Average incomes are higher than Greater Melbourne with managers and professionals within the top three broad occupations. Workers are mostly based in the education industry attached to Monash University. Again, this data does not include workers at the Victorian Heart Hospital. More detail is provided in Appendix B.

STATISTIC TYPE	STATISTIC	MONASH STRUCTURE PLAN AREA (NO.)	MONASH STRUCTURE PLAN AREA (%)	GREATER MELBOURNE	VARIANCE TO GREATER MELBOURNE
Workers	Total workers	20,900	-	2,376,700	-
	Full-time workers	14,400	69%	61%	8.4%pt
	Part-time workers	5500	26%	33%	-6.5%pt
Age	Aged 15-24 years	2200	10%	13%	-2.9%pt
	Aged 25-39 years	8000	38%	38%	0.6%pt
	Aged 40-54 years	7100	34%	31%	3.1%pt
	Aged 55+ years	3600	17%	18%	-0.5%pt
Education & *Income*	Bachelor degree or higher	12,100	58%	44%	13.5%pt
	Diploma and above	2200	10%	12%	-1.3%pt
	Certificate or Year 10 and above	5900	28%	39%	-10.4 %pt
	Average income	$87,000		$76,200	14.1%
Broad Occupation	White collar	16,400	79%	75%	3.5%pt
	Blue collar	4500	21%	25%	-3.3%pt
Top *Occupations*	1. Professionals	8400	40%	28%	12.6%pt
	2. Clerical & administrative	3200	15%	14%	0.8%pt
	3. Managers	2700	13%	11%	1.5%pt
Broad *Industry*	Education	8000	38%	11%	26.7%pt
	Health	800	4%	16%	-12.3%pt
	Professional services	4600	22%	21%	1.6%pt
	Other population services	4000	19%	32%	-12.9%pt
	Industrial	3500	17%	20%	-3.0%pt

FIGURE 3.6 MONASH WORKER CHARACTERISTICS, 2021

Source: ABC Census of Population Aged 15+ [2021]

3.5 Industrial areas snapshot

3.5.1 POLICY INTENT TO DATE

Monash's Industrial Areas are recognised by MICLUP as 'regionally significant industrial land' within a National Employment and Innovation Cluster (NEIC). Industrial land in the Structure Plan Area is anticipated to develop over time and support the realisation of the broader Monash NEIC as a pre-eminent healthcare, education, technology, advanced manufacturing and health research provider and activity cluster of national significance.

3.5.2 CURRENT LAND USE

Monash Structure Plan has two broad Industrial Areas, one south of Ferntree Gully Road and one east of Blackburn Road (see Figure 3.1). Together they form part of the broader NEIC, with expectations of significant employment growth through each in support of the global innovation and technology-based aims of the NEIC. This area is zoned Special Uses, promoting promote integrated development of offices and manufacturing industries, along with complementary business activities. The Australian Synchrotron has a bespoke Special Use zone.

Ferntree Gully Road is around the future SRL East station and is a mixed environment of high-tech industry in business parks (consistent with NEIC ambitions), and but also low-density small businesses such as automotive repair.

Blackburn Road is more consistent with policy directions with key research institutions like the Australian Synchrotron and several biomedical tenants, but also has several less-aligned light industry, warehouses and low-density office uses.

Overall, the two areas account for an estimated 55% of workers within the total Monash Structure Plan. Since 2011, the industry mix within the areas has shifted away from industrial industries, with strong growth in health and education.

3.5.3 EMERGING LAND USE

There has been some higher density office development (4-5 storeys) developed in limited parts of the Ferntree Gully Road Industrial Area. This has primarily been in professionally managed business parks, such as Ferntree Business Park, where there have been larger offices developed tenanted by the likes of Olympus and Schneider Electric. A Quest Serviced Apartment building has also been opened in this park. The smaller lot Industrial Areas along Howleys and Normanby Roads have seen limited development in recent times, except for some 1-2 storey office/warehouse units (e.g., 39-45 Howleys Road).

The Blackburn Road Industrial Area is less intensively developed with a mix of low-rise office parks (2 storeys), some larger warehouses, small lot development along Henderson Road. Key facilities are the Australian Synchrotron, Monash Biomedical Imaging and the Melbourne Centre for Nanofabrication.

The major new development in the area is Moderna's mRNA vaccine manufacturing facility being developed on Wellington Road at the southern edge of the precinct. This facility will support around 500 jobs upon completion.

3.5.4 NATURAL EVOLUTION IN THE ABSENCE OF SRL EAST

The Special Use Zones in the Monash NEIC are intended to facilitate the integrated development of office and advanced manufacturing as part of the knowledge, innovation and technology focus of the precinct.

Despite the opportunity created by the zone, the transition of the precinct from a traditional Industrial Area has been relatively slow, particularly in the area immediately around the proposed SRL station. There have been some signs of modern office development attracting world-renowned businesses, however the scale of development is still modest. This is unlikely to change dramatically without further intervention.

Without significant land amalgamation (refer Appendix B.6 showing lot pattern), while the land use will change gradually, the desired outcome of a high-density, high-value, employment precinct will take an extended period to emerge, with smaller format local businesses still occupying land in the core for the time being. It is possible that the opportunity presented by the new SRL station and the impact this will have on land values may accelerate growth, however, there is a view that the precinct lacks the amenity and activity that is needed to make it a more attractive core business area.

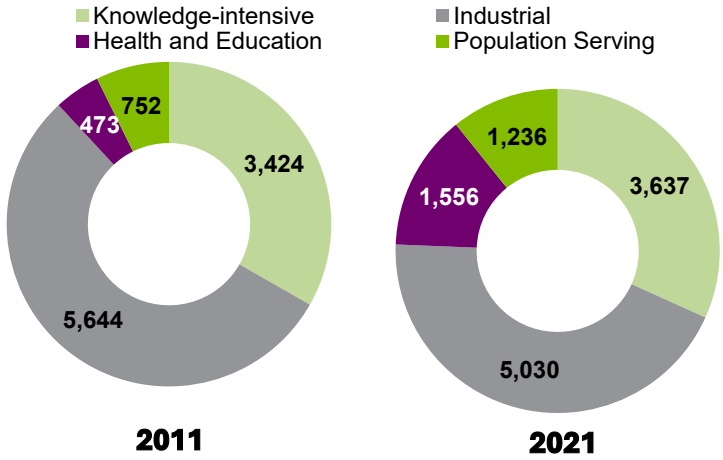
The Blackburn Road Industrial Area will likely remain a low to mid-rise office and industry environment. There are some infill opportunities, although the future plans for the Australian Synchrotron and other key innovation and technology institutions will influence development opportunities.

~55%

Share of workers in Structure Plan industrial areas

+1170

Additional workers between 2011 and 2021



Top 3 occupations in 2021:

1	Professionals
2	Clerical and administrative workers
3	Technicians and trade workers

Ferntree Gully Road Industrial Area

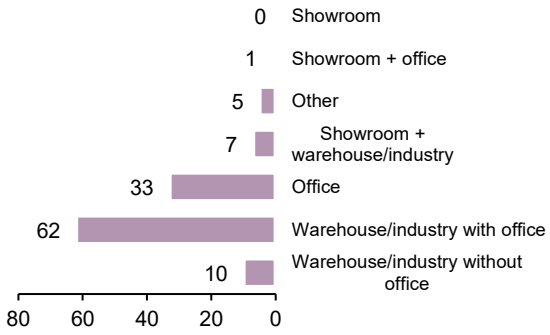
Average Size of Sites, 2024 Cadastre	**3050** sq.m *(A "site" is here determined as a cadastral parcel of one owner)*

ANZSIC industry class of businesses within each of Monash's Industrial Areas, 2024 Audit

Top 3 industries of businesses:

1	Engineering Design and Engineering Consulting Services
2	Other electrical and electronic goods wholesaling
3	Real estate services

Typology of structures on sites in each of Monash's Industrial Areas, 2024 Audit



Blackburn Road Industrial Area

Average Size of Sites, 2024 Cadastre	**5230** sq.m *(A "site" is here determined as a cadastral parcel of one owner)*

Top 3 industries of businesses:

1	Engineering Design and Engineering Consulting Services
2	Computer system design and related services
3	Management advice and related consulting services

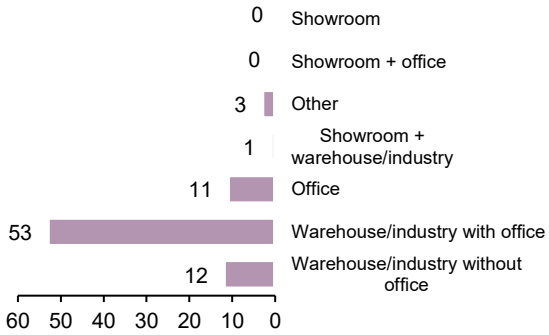


FIGURE 3.7 MONASH INDUSTRIAL AREA WORKERS TOTAL (TOP LEFT) AND BY INDUSTRY IN 2011 AND 2021 (MIDDLE LEFT)

FIGURE 3.8 MONASH INDUSTRIAL AREAS TOP 3 OCCUPATIONS, 2021 (BOTTOM LEFT)

FIGURE 3.9 FERNTREE GULLY ROAD INDUSTRIAL AREA PROFILE, 2024 (RIGHT OF PAGE, 1ST COLUMN)

FIGURE 3.10 BLACKBURN ROAD INDUSTRIAL AREA PROFILE, 2024 (RIGHT OF PAGE, 2ND COLUMN)

Source: AJM audit of industrial land using manual check of sites by cadastral parcel and Arealytics data on business details such as ANZSIC Industry Level 4

3.6 Existing employment floorspace

The floorspace in the Monash Structure Plan Area was audited for this assessment. This considered LiDAR scans of the built environment, zone and ground floor use data, as well as a series of manual checks on floorspace use and investigating any irregular sizes.

Note the figures provided are gross building area (GBA) as the floorspace audit was undertaken using external building information, and no common spaces or otherwise unleasable spaces were removed from the building extents.

There is an estimated 1.5 million sq.m of employment floorspace in the Monash Structure Plan Area. This is around 2.5 times the gross building area of residential floorspace in the Structure Plan Area.

Figure 3.11 shows the distribution of employment floorspace by type in the Structure Plan Area. It highlights the dominance of education, industrial and office uses in the Structure Plan Area.

The existing locations of these employment types in the Structure Plan Area is identified in Appendix B. It shows that employment activities are spread across the existing education facilities and Industrial Areas.

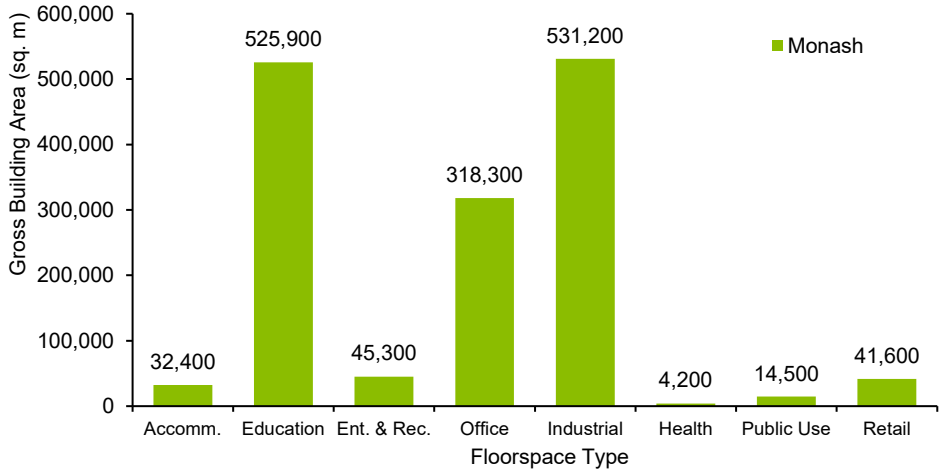


FIGURE 3.11 MONASH STRUCTURE PLAN AREA, EXISTING FLOORSPACE BY TYPE (SQ.M GBA) 2023

Source: DEECA, PSMA, Space Syntax; AJM JV

3.7 Recent and proposed employment-related development

Analysing recent and proposed employment-related development activity helps to understand if the market is ready to meet projected demand for floorspace.

The amount of floorspace by land use in the short-term development pipeline is summarised in Table 3.1. This data is presented as Gross Floor Area (GFA).

Recent and proposed large-scale employment-related developments in the Monash Structure Plan Area are summarised in Table 3.2 and Table 3.3 (also shown in Figure 3.1 above).

Monash has historically been a low density residential and light Industrial Area around the University. This has resulted in low levels of densification. The new station may be a catalyst for changing this.

Recent developments in the Monash Structure Plan Area include the Victorian Heart Hospital and the Monash University Chancellery Building which brought in 54,000 sq.m of health floorspace and 10,000 sq.m of education floorspace respectively.

The following proposals are examples of large-scale employment-related developments recently delivered or currently planned within the Monash Structure Plan Area.

TABLE 3.1 ESTIMATED FUTURE SUPPLY OF EMPLOYMENT FLOORSPACE, MONASH STRUCTURE PLAN AREA

LAND USE	ESTIMATED SHORT-TERM DEVELOPMENT PIPELINE (GFA)	KEY DEVELOPMENTS
Industrial	22,000	• Medicine Manufacturing Innovation Centre as part of the Australian Synchrotron Updates (Complete as at 2024) • Moderna MRNA Vaccine Manufacturing Facility • Johnson & Johnson and Drager Warehouse Developments
Office	~8000	• Capital Transport Office Building • Johnson & Johnson and Drager attached office floorspace • Victoria Health Innovation Centre and Heart Labs
Education	2000	• Monash University Child Care Centre

Source: Cordell, AJM JV

TABLE 3.2 RECENT EMPLOYMENT-RELATED DEVELOPMENT, MONASH STRUCTURE PLAN AREA

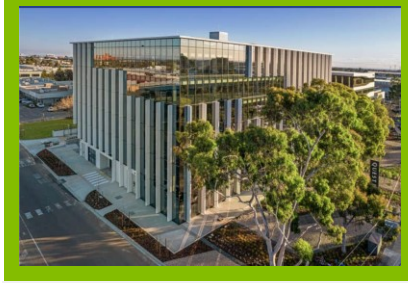
1. VICTORIAN HEART HOSPITAL 	• Currently under staged opening, the eight-storey hospital welcomed its first patient in February of 2023. The development includes out and inpatient cardiac facilities, theatres, laboratories and 206 beds. The Monash Cardiovascular Research Centre will be housed on site with the hospital used as an education and training facility for medical professionals. • Operational Jobs: 850 • Completed 2023
2. M-CITY MIXED-USE DEVELOPMENT 	• High-rise mixed use development at the intersection of the Princes Highway and Blackburn Road. M-City is providing 41,200 sq.m GLA of employment floorspace with around 14,300 sq.m of retail and 26,900 sq.m of other employment uses such as a cinema, office space and a hotel. There is also a significant amount of apartments above the centre. • Employment GLA: 41,200 sq.m • Completed 2021
3. QUEST NOTTING HILL 	• Business oriented commercial accommodation development within the Ferntree Business Park. • Rooms: 100 • Completed 2018
4. MONASH UNIVERSITY CHANCELLERY BUILDING 	• Four storey administrative building for Monash Universities Vice Chancellor, senior executives and over 300 staff. The Chancellery includes meeting rooms, public spaces and a central events atrium accommodating up to 350 people. The development is located towards the centre of the Monash University campus. • GFA: 10,000 sq.m • Completed 2019
5. FERNTREE BUSINESS PARK 	• Five storey office building with 10,000sq.m of A grade office space plus on site café, childcare and proximity to serviced apartments. Sits in a landscape sitting providing a high level of amenities for workers. • GFA: 15,500 sq.m • Completed 2022

TABLE 3.3 PIPELINE EMPLOYMENT-RELATED DEVELOPMENT, MONASH STRUCTURE PLAN AREA

1. AUSTRALIAN SYNCHROTRON UPDATES 	• Following a $520 million grant from the Federal Government, the Australian Synchrotron is constructing six new beamlines along with radiation shielding hutches and other associated technology as part of project BRIGHT. Additionally, a two-storey building housing the Medicine Manufacturing Innovation Centre is being built on the synchrotron site including laboratories and office space for 22 staff. • GFA: ~2000 sq.m (MMIC) • Planned Completion: MMIC is complete as at 2024, the remainder is for 2025 • Development Stage: Under construction •
2. VICTORIA HEALTH INNOVATION CENTRE AND HEARTLABS 	• Monash University are planning the Victoria's Health and Innovation Centre, including a flagship cardiovascular disease-focused research accelerator, HeartLabs, and a new focal point for clinical trials, to create high-value jobs, intellectual property, start-ups, and attract and nurture new clinical trials. • GFA: 1700 • Planned Completion: 2024 • Development Stage: Under construction
3. CSIRO HYDROGEN REFUELLING STATION 	• As part of CSIRO's Hydrogen Industry Mission the Hydrogen Refuelling Station will bring together researchers and industry to trial and demonstrate emerging hydrogen technology. The development sits on the CSIRO Clayton campus, just north of Monash University. • GFA: n/a • Planned Completion: 2024+ • Development Stage: Early Planning
4. MODERNA MRNA VACCINE MANUFACTURING FACILITY 	• Vaccine manufacturing facility established through partnership between the Australian and Victorian Governments with Moderna. 16,500 sq.m facility has pharmaceutical grade space along with laboratories, administration areas with office space and employee amenities and a warehouse with loading dock. It is estimated the facility will support 500 medical manufacturing and research roles. • GFA: 16,500 sq.m • Planned Completion: 2024+ • Development Stage: Under construction

3.8 Implications for Monash Structure Plan

The key findings and implications derived from this section influencing the development of the Monash Structure Plan Area include:

- The economy within the Structure Plan Area has experienced strong growth over the past decade, primarily driven by significant worker growth in the education sector. This sector remains a clear specialisation for Monash and is likely to continue defining its future growth. Professional services have also seen strong growth particularly in professional, scientific and technical services. There has been modest growth in population services, primarily through an increase in construction workers within Industrial Areas and new office developments across the Structure Plan Area.
- Monash's distinct education and professional services offer has shaped its workforce, resulting in a predominantly highly skilled, white-collar workforce. Education and professional services accounts for 60% of all existing employment floorspace within the Structure Plan Area. Health jobs are expected to increase into the future with the recent addition of the Victorian Heart Hospital.
- Pipeline development in Monash is expansive within higher technology industrial uses specifically. The CSIRO, Moderna and Heart Hospital all have plans to expand their facilities, keeping in line with the expectations for the Monash National Employment and Innovation Centre.
- Monash's two large Industrial Areas area crucial to its long-term growth as a NEIC. Currently, the Ferntree Gully Road Industrial Area is mixed environment of environment of high-tech industry in business parks (consistent with NEIC ambitions), and but also low-density small businesses such as automotive repair. The Blackburn Road Industrial Area includes the Australian Synchrotron and several biomedical tenants, but also has several less-aligned light industry, warehouses and low-density office uses.

Part B: Economic Outlook and Potential

Part B includes:

- **Section 4** reviews the role of suburban employment hubs and assesses the potential for growth in professional services jobs in the Monash Structure Plan Area.
- **Section 5** considers the changing nature of work and jobs, the impacts on workplace types and locations, and the implications for planning future employment floorspace in the Structure Plan Area.
- **Section 6** considers the economic strengths and challenges of the Structure Plan Area and assesses its long-term economic potential and growth.

4. Supporting the evolution of employment hubs outside CBDs

This section provides an analysis of the present functions of employment hubs outside the Melbourne CBD and the distribution of professional services jobs across Greater Melbourne. The growth of employment hubs outside the Melbourne's CBD is contrasted with Sydney, emphasising crucial insights and strategies for promoting the development of suburban employment hubs.

SRL East will enhance connectivity to Monash and drive employment growth. This analysis provides a framework to evaluate whether Monash can support a major employment hub with a high concentration of office-based uses or if a smaller, mixed employment function would be more suitable.

4.1 Historical and current role of suburban employment hubs

Suburban centres have traditionally focused on meeting the needs of their local communities, serving as hubs for employment that cater to the population. This includes employment in sectors such as health, education and other population services.

On the other hand, central business districts (CBDs) have traditionally played a crucial role as the primary commercial and economic centres in Australian cities. They have been characterised by dense concentrations of professional services jobs including corporate headquarters and financial institutions.

With the evolution of technology, changing work patterns, and shifting preferences, the roles of suburban employment hubs and CBDs are evolving, with some suburban areas transforming into vibrant centres accommodating more professional services and CBDs adapting to accommodate a more diverse range of activities and functions. There are several push factors at play. As CBDs reach their capacity, accommodation costs (such as rents) increase and there is limited space for new employment floorspace. As outlined in Section 2, there is also a strong policy push to decentralise jobs across metropolitan areas to increase economic competitiveness and employment opportunities.

4.2 Distribution of professional services - Melbourne vs Sydney

Figure 4.1 and Figure 4.2 show the distribution of professional services jobs across Melbourne and Sydney respectively.

In Melbourne, the CBD offers the principal concentration of professional services jobs, while there are few of these jobs in suburban areas. The more limited role of professional services in Melbourne's suburban centres is linked to its highly centralised and successful CBD and inner city. Its excellent accessibility and amenities, along with a critical mass of knowledge intensive firms, has made inner Melbourne a highly attractive location for business, leading to a concentration of economic activity.

These businesses depend on the most skilled workers, and by locating in the heart of Melbourne, employers have access to the largest possible supply of labour via the hub and spoke network of train lines and freeways. Similarly, the CBD enables businesses to locate close to their clients, a key factor which has been shown in to influence business location.

As at the ABS Census in 2021, 21% of Melbourne's total job market is now concentrated in the CBD (the Melbourne City SA3 was adopted as the Melbourne CBD for this assessment). Consequently, 43% of all professional services jobs are in the Melbourne CBD, with a substantial share of the city's office space concentrated in the CBD. In Sydney, while the CBD remains significant, professional services jobs are also located outside the CBD, particularly in the corridor extending from the CBD towards Macquarie Park. Only around 35% of professional services jobs across Greater Sydney are in the CBD (defined as the Sydney [North] – Millers Point and Sydney [South] – Haymarket) SA2s).

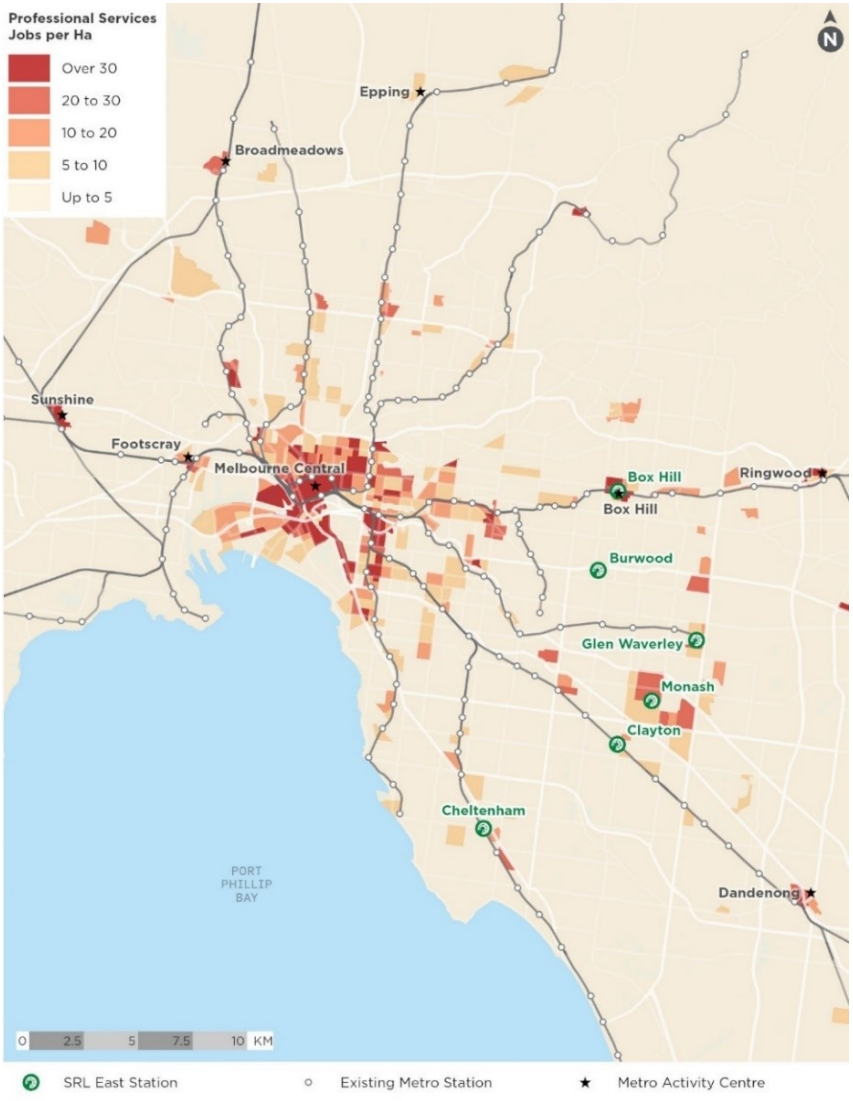


FIGURE 4.1 DISTRIBUTION OF PROFESSIONAL SERVICES EMPLOYMENT DENSITY ACROSS MELBOURNE, 2021

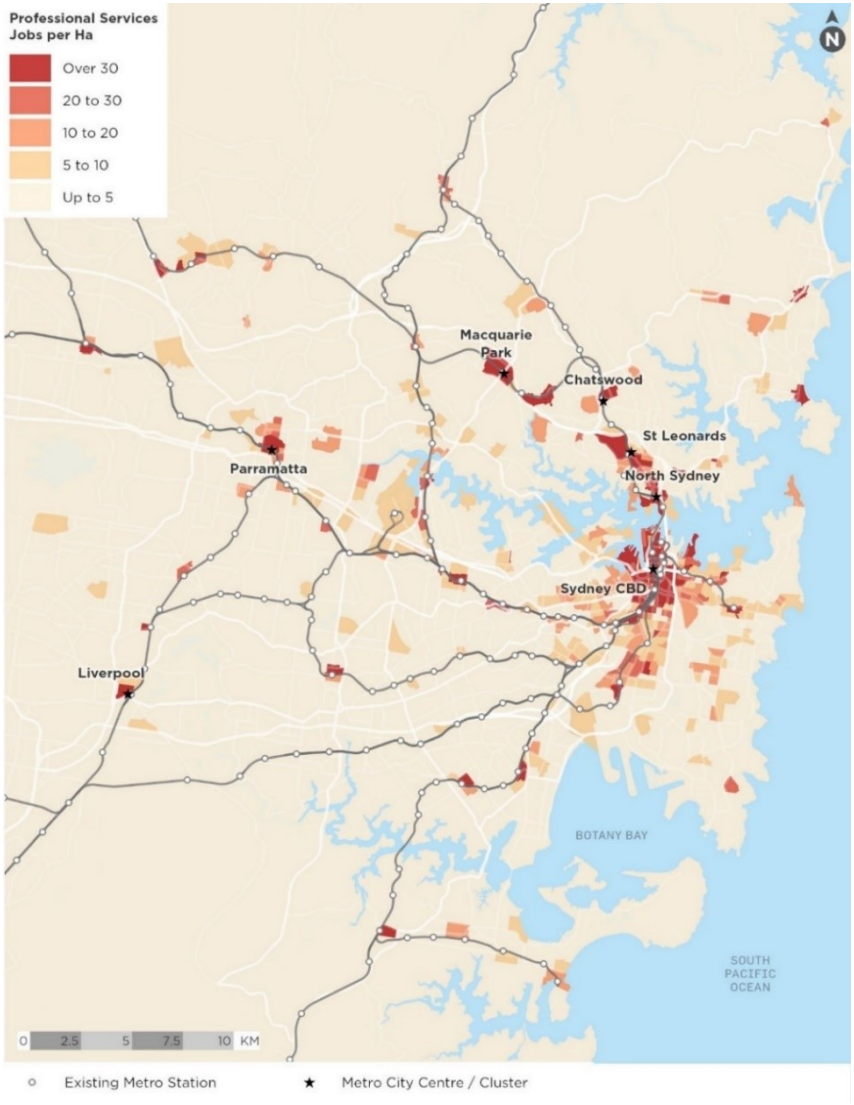


FIGURE 4.2 DISTRIBUTION OF PROFESSIONAL SERVICES EMPLOYMENT DENSITY ACROSS SYDNEY, 2021

Source: AJM JV, ABS Census 2021

In Sydney, while the CBD remains significant, professional services jobs are also located outside the CBD, particularly in the corridor extending from the CBD towards Macquarie Park. Only around 35 % of professional services jobs across Greater Sydney are in the CBD (defined as the Sydney [North] – Millers Point and Sydney [South] – Haymarket) SA2s). As Figure 4.3 shows, key clusters of professional services outside the CBD include:

- Macquarie Park
- North Sydney
- Parramatta
- St Leonards / Crows Nest
- Chatswood.

Compared to the current SRL East Structure Plan Areas, a higher share of the jobs in these areas are professional services jobs. An average of just under 50% of all jobs in these Sydney hubs are in professional services, compared with around 20% in the SRL East Structure Plan Areas, erring higher in the denser regions of Box Hill and Monash, as shown in Figure 4.3. More detail profiling the Sydney suburban employment hubs is provided in Appendix C.

Over the past decade in Sydney, more office floorspace was delivered outside the non-CBD office markets.[9] Looking forward, pressures such as escalating rents in Sydney's CBD, and space limitations are likely to continue to propel the growth of office floorspace, and therefore by extension, professional services jobs outside the Sydney CBD.

While to date, Melbourne's CBD has been able to accommodate the high share of Greater Melbourne's professional services jobs, it cannot continue to do so. There is ultimately limited capacity in the CBD and adjoining areas. This includes a lack of land area to expand, but also transport network constraints capping the ability to keep moving the population in growing outer areas to jobs in the city. As the need for jobs grows in line with Melbourne's population, a greater share of jobs of all types, including traditional CBD employment, will need to be located closer to where people live in suburban environments.

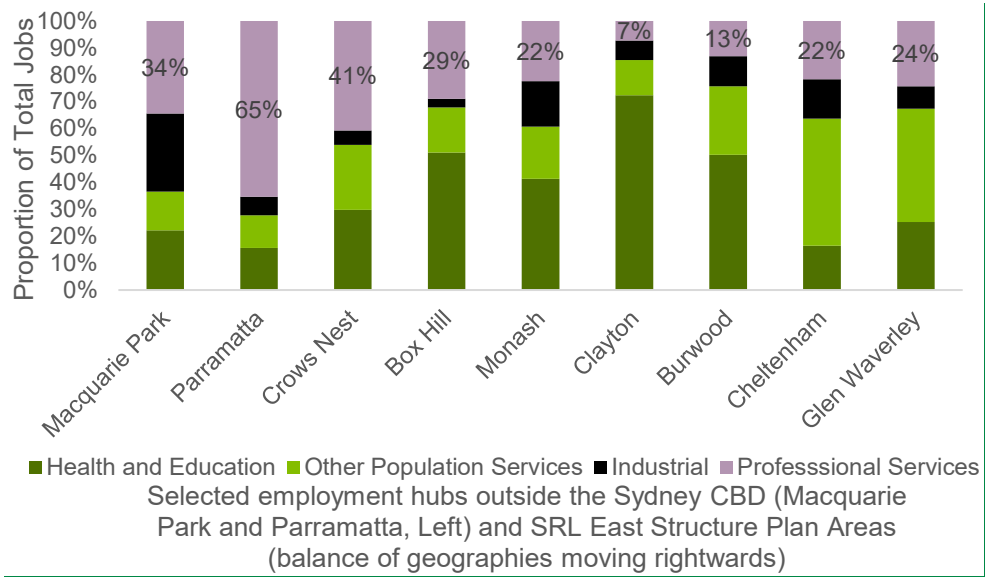


FIGURE 4.3 JOBS BY INDUSTRY, SELECTED SYDNEY SUBURBAN EMPLOYMENT HUBS AND SRL EAST LOCATIONS, 2021

Source: ABS Census 2021, AJM JV

While there are factors influencing suburban employment growth in Sydney that are not as applicable to Melbourne, such as accessibility challenges owing to the geographical arrangement of Sydney, the Sydney experience can be instructive for the evolution of Melbourne's suburban employment hubs. Exploring the key drivers of non-CBD employment and office growth in Sydney can offer valuable insights into promoting the growth of professional services employment beyond Melbourne's CBD. These elements are explored more below.

[9] Savills, "Location requirements for office occupiers" Prepared for the Western Sydney Parkland City, June 2021

4.3 Essential factors fostering the evolution of suburban employment hubs

While each employment hub has specific factors influencing growth and each plays its own role, the Sydney experience highlights some common success factors that are applicable to understanding how the suburban employment locations in Melbourne may grow and support a greater share of professional services jobs.

This review highlights that in the Sydney context, suburban office hubs are not located at every train station, but generally at locations with the specific features such as a major anchor, high amenity and excellent public transport accessibility. For SRL East, this highlights that suburban office space is likely to play a varied role in each Structure Plan Area, defined by its unique attributes.

The Macquarie Park Innovation District is a prime example of successful growth in a suburban employment hub. Like Monash, Macquarie Park is centred around a large university, which has attracted various complementary R&D and innovation-focused businesses. The opening of the rail connection in 2009 was a turning point for Macquarie Park, enhancing accessibility and making it a more attractive location for businesses. Since then, the State Government has continued to play a pivotal role in the precinct's development, providing a planning framework, infrastructure, and investment attraction. Currently, the focus for Macquarie Park is to enhance vibrancy and activity by introducing large-scale housing to selected areas. Delivering 7650 new dwellings is considered critical to help create an additional 20,000 jobs in Macquarie Park over the next years by providing a more vibrant amenity, fostering a 24-hour economy, and driving demand for various population-driven services. Macquarie Park is profiled in more detail in Appendix C.

Figure 4.4 provides a snapshot of the key elements fostering the expansion of suburban employment hubs, which is applicable to the future role of some of the employment hubs to be serviced by SRL East. More detail on these key elements and examples in the Sydney context are provided in Appendix C.

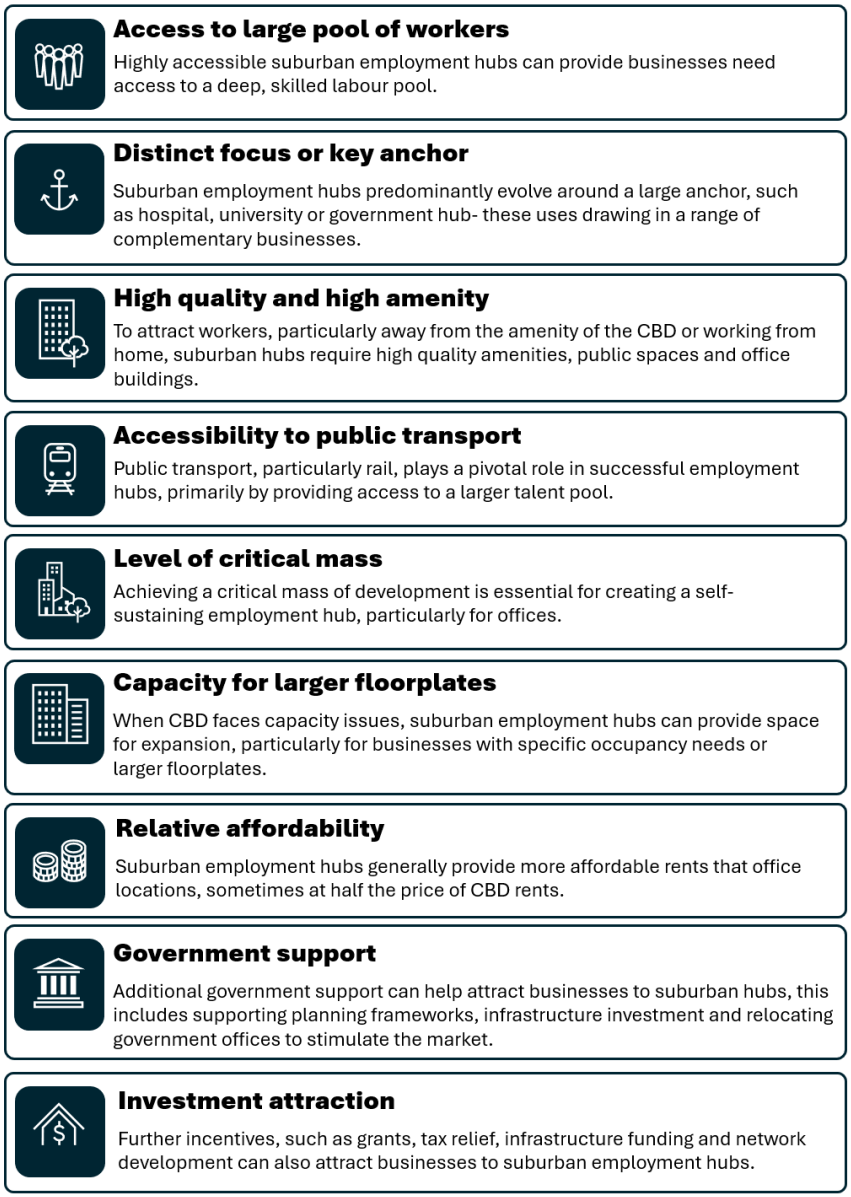


FIGURE 4.4 KEY ELEMENTS OF SUBURBAN OFFICE HUBS

Figure 4.5 assesses the Monash Structure Plan Area against these factors, highlighting the propensity for Monash to support a larger suburban office hub.

Overall, Monash has the foundations to grow as a significantly larger office hub. As a NEIC, it has the large anchors of the University and other institutions which can continue to attract business to the area. It also has the strong government support and investment attraction to grow its office offer.

The Structure Plan Area already has approximately 320,000sq.m GBA of office stock. These are distributed widely across the Structure Plan Area, with small pockets of business park activity east along Blackburn Road and Ferntree Gully Road, and across other areas (see Figure 4.6). Whilst there is a distinct lack of office space currently in the area immediately around the future SRL East station, this provides an opportunity for structure planning to incorporate office into a new town centre.

Transport connections and high levels of worker amenity are the key missing ingredients from the Structure Plan Area currently. SRL East and the delivery of a new town centre with retail, services entertainment and activity beyond business hours, can provide the impetus for further office development.

Future office space in Monash should be in areas with excellent access to the SRL East station and provide workers with a high level of amenity through access to a retail, food and beverage (F&B) and other services. Structure planning can deliver large floorplates to help attract larger business and corporates, with critical mass within buildings and as a collective making delivery of office space more attractive from a development return perspective.

Element		Opportunity in Monash
Access to a large pool of workers	Medium	White-collar workforce in surrounding suburbs, but catchment has limited residential areas close by.
Distinct focus or key anchor	High	Monash University, various intuitions and businesses across the NEIC.
High quality, high amenity	Medium	No existing activity centre core in Structure Plan, likely to emerge but will be limited in scale.
Access to public transport	High	SRL East plus existing and bus interchanges.
Critical mass	Medium	Office floorspace comparable to smaller Sydney benchmarks but distributed across Structure Plan Area with no central core.
Capacity for large floorplates	High	Ability to create large floorspace but may require some site amalgamation particularly around new town centre.
Relative affordability	High	Rents compare favourably with CBD and inner Melbourne.
Government support	High	Part of Monash NEIC with strong policy direction to support a major employment cluster for knowledge-based industries.
Investment attraction	High	State Government active in investment attraction (i.e. Moderna, Synchrotron). Business advocacy organisations already active (i.e. Monash Technology Precinct).
MONASH OVERALL	**Strong potential for growth as a major office hub with the**	

FIGURE 4.5 ASSESSMENT OF MONASH AGAINST KEY FACTORS OF SUBURBAN OFFICE HUBS

Source: AJM JV

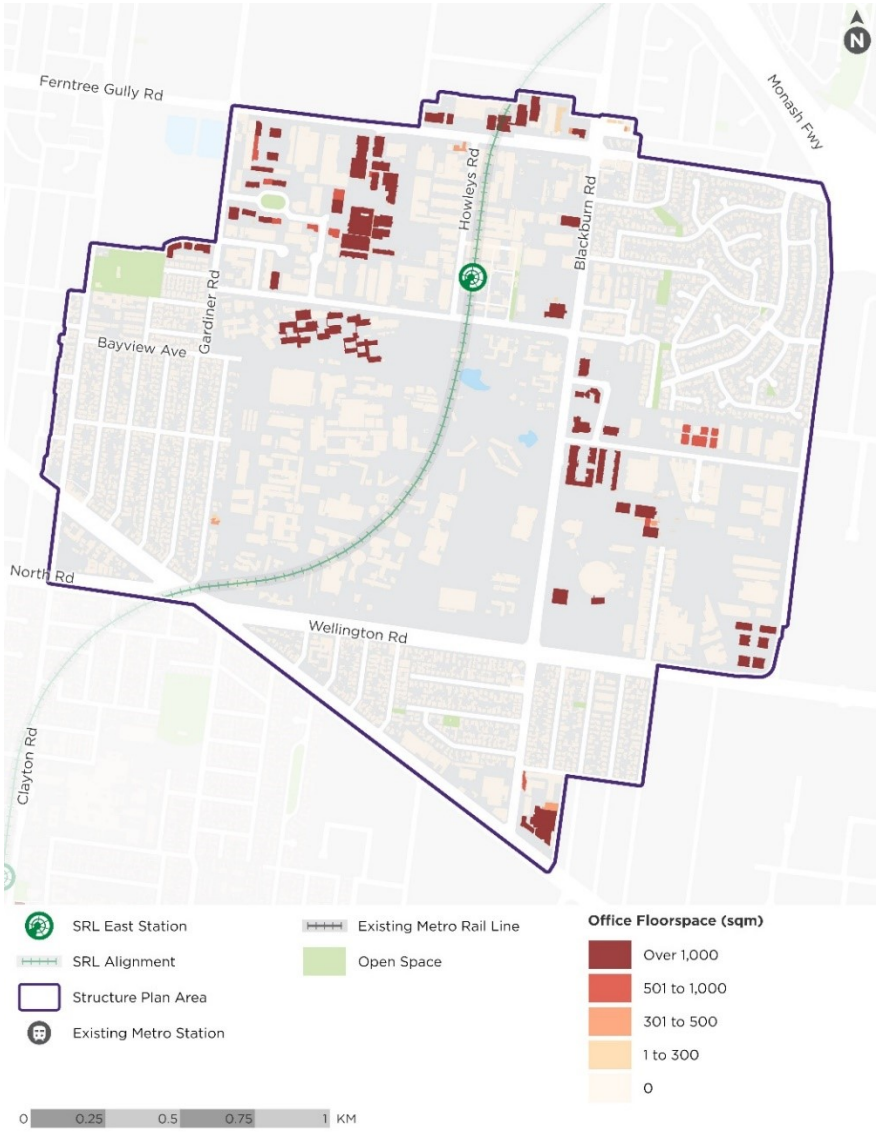


FIGURE 4.6 MONASH OFFICE FLOORSPACE 2021

Source: DEECA, PSMA, Space Syntax, AJM JV

4.4 Role of residential in employment hubs

Residential elements are becoming increasingly important in many new employment hubs both in Australia and internationally. This shift reflects an appreciation that residential uses can create a mixed-use environment, yielding numerous benefits for employment precincts. These benefits range from increased activation to providing essential housing and enhancing development viability. These advantages are summarised in Figure 4.7.

International evidence shows that successful innovation districts require mixed land uses and are socially, culturally, and economically diverse, offering a variety of housing types, tenures, and prices. Examples include Kings Cross Innovation District in London, Brooklyn Tech Triangle in New York, and Boston Waterfront Innovation District in Massachusetts[10].

Closer to home, residential areas are increasingly becoming part of major employment precincts. For example, Macquarie Park's new master plan incorporates residential developments to enhance vibrancy and activity. The most recent Place Strategy aims to add over 7650 homes to the precinct. Refer to Appendix C for further detail.

Similarly, the Tonsley Innovation District in Adelaide, a high-value manufacturing hub, intends to provide housing for a diverse mix of residents, supporting approximately 1600 people[11]. Including residential uses enhances vibrancy, leverages the benefits of mixed-use development, and financially supports the delivery of other uses and developments in the master plan.

This does not imply that all employment precincts require housing. Areas with a range of industrial uses need appropriate separation from sensitive uses like residential. Case studies show that employment precincts can include discrete residential or mixed-use areas, supporting the development of active, vibrant, and sustainable employment hubs.

This approach aligns with the Victorian Government's publication 'Unlocking enterprise in a changing economy' which recognises the value of residential uses in the enterprise and innovation precincts. They highlight how recent changes to the Commercial 3 Zone, designed to realise 'enterprise precincts' allow for 'complementary yet limited retail and residential uses where these uses are

[10] AHURI (2020) Affordable housing in innovation-led employment strategies. Report 133, DOI 10.18408/ahuri-7320401

[11] Tonsley Innovation District (2024), https://tonsley.com.au/vision/,

considered appropriate to support enterprises to flourish'12. Figure **4**.8 illustrates what DELWP (now Department of Planning and Transport) considers to be the key factors driving the success of enterprise precincts which includes factors such as quality of place, diversity and inclusion, and accessibility, each which can be positively influenced by residential development.

In the Monash context, consideration could be given to the role residential uses could play in a potential new town centre around the SRL East Station. Existing residential uses are located some distance from here, across Blackburn Road. Adding residential activity generate a higher level of activity, contribute towards a 24 hour economy and drive demand for a range of population based services. Furthermore, it could make mixed use development in select locations more feasible and support more business activity, driving higher employment outcomes close to the SRL East Station.

FIGURE 4.7 BENEFITS OF RESIDENTIAL DEVELOPMENT IN EMPLOYMENT HUBS

Source: AJM JV

[12] DEWLP (2018) 'Unlocking enterprise in a changing economy' page 3

FIGURE 4.8 FACTORS DRIVING THE SUCCESS OF ENTERPRISE PRECINCTS

Source: DELWP (2018) Unlocking enterprise in a changing economy

4.5 Implications for Monash Structure Plan

The key findings and implications derived from this section influencing the development of the Monash Structure Plan Area include:

- Melbourne faces a distinct challenge in nurturing the growth of suburban employment hubs outside the CBD. It requires a major shift from historical trends and current norms. This is particularly so for professional services jobs, which have historically concentrated in and around the Melbourne CBD.
- Learning from Sydney's experience, there are several factors which can support growth of suburban employment hubs. These include high worker amenity, worker catchment, role of key anchors, supportive planning framework and other strategies to attract and incentivise business investment.
- Based on an assessment of suburban office hub attributes, the Monash Structure Plan Area, has significant potential to become a large office hub. It possesses many of the necessary attributes built around the themes of technology and innovation inherent in the broader NEIC. The completion of SRL East and a new town centre will drive further office development. The new town centre could support a cluster of office spaces in a high-amenity environment with excellent public transport. Generous floorplates in the town centre, subject to site amalgamation could attract larger businesses and further national and multi-national corporate groups. Residential uses within the potential new town centre could help activate the Monash and support viability of office based uses.

5. Industry requirements

This section summarises key industry trends influencing the floorspace needs of different businesses, as well as the specific location requirements of various sectors. This helps in understanding the specific types of floorspace needed to accommodate the projected jobs growth in the Monash Structure Plan Area, and the ideal locations for the floorspace.

5.1 Changing nature of work and jobs

The changing nature of work, driven by globalisation, technologies and demographic shifts is reshaping the employment landscape and workspace requirements.

Over the last 40 years there has been a shift across all industries towards occupations with a higher level of skills, alongside the decline of industrial activity in the economy. As outlined by the RBA[13], this trend has been predominantly driven from a labour demand perspective, with industries requiring an increasingly higher level of skill over time, rather than a shift in employment from industries with low-skilled employment to those with high-skilled employment.

A key driver of this has been the noticeable decrease in the proportion of people employed in routine jobs. Technology has had a significant impact on routine manual as well as cognitive jobs. Automation and robotics have significantly replaced human labour in agriculture and manufacturing sectors. Technology has also facilitated the outsourcing of routine cognitive tasks to regions with lower labour costs, such as offshore call centres and back-office operations. This has culminated in the relative decline of lower and middle-skilled jobs over the past 30 years.

Improved technological efficiency, while decreasing the number of low-skilled jobs, does not decrease employment overall. In contrast, non-routine roles have gained increasing significance. These positions are inherently more challenging to automate due to various factors. For instance, occupations like architecture often require creativity and problem-solving abilities, while others like childcare require a physical presence.

The significance of non-routine positions has led to considerable expansion in the broader service sector. Over the past 15 years or so, the health care and social assistance industry has made the largest contribution to employment growth, with most new positions falling into the non-routine category. Following health care, the professional, scientific and technical services, and education and training sectors are the next largest contributors to the growth of non-routine jobs during this period as these industries experience increased demand for labour upskilling[14]. This trend is reflected in the changing composition of employment by industry across Australia, shown in Figure 5.1.

Looking forward, continued technological change, such as AI and other technologies, is likely to bring a variety of changes to employment. Increased automation will continue to reduce demand for routine jobs and increase demand for higher skilled workers across all industries, particularly in health and education and the professional services sectors.

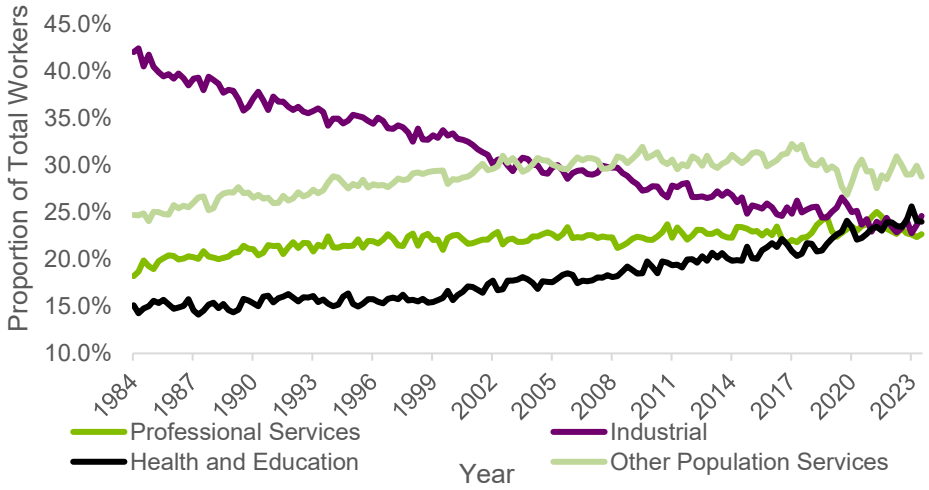


FIGURE 5.1 SHARE OF WORKERS BY BROAD INDUSTRY, VICTORIA

Source: AJM JV, ABS Labour force time series, detailed by industry

[13] Heath, A. (2020). Skills Technology and the Future of Work (Speech). Reserve Bank of Australia. *https://www.rba.gov.au/speeches/2020/sp-so-2020-03-16.html*

[14] Heath, A (2016) The Changing Nature of the Australian Workforce (Speech). Reserve Bank of Australia *https://www.rba.gov.au/speeches/2016/sp-so-2016-09-21.htm*

5.2 Emerging workplace trends

The changing nature of work and jobs also impacts the types of spaces we work in. Our workplaces are constantly changing, and the rate of change was expedited by the COVID-19 pandemic, which accelerated the cultural norms and technologies to support flexible and remote work. It also emphasises the importance of high amenity workplaces to engage workers and the value collaborative spaces to enable the transfer of ideas and knowledge.

Key trends influencing where and how we work are summarised below, with further explanation provided in Appendix C.

- **Mixed use buildings and precincts** – There has been a shift towards uses and activities mixing in buildings and precincts to create opportunities for collaboration and engagement, while enhancing amenity and vibrancy for workers.
- **Remote work** – The increase in and acceptance of remote working post COVID-19 has led to greater flexibility of how and where we work.
- **'Flight to quality'** – To attract employees and encourage them to come together in a formal workplace, businesses and institutions are increasingly seeking high-quality workspaces supported by high levels of amenity.
- **Co-working** – As a response to supporting the need and desire for remote working, but maintaining employee interaction and collaboration, demand for co-working facilities and suburban office hubs is increasing.
- **Technology** – Technological advancements and increasing infrastructure needs to support digital capacity are influencing the nature of workplaces and support services.
- **Sustainability** – Sustainable workspaces as increasingly a must-have, providing for energy efficiency, meeting environmental, social and governance (ESG) commitments and attracting talent.

5.3 Impact on workplace typologies and locational preferences

Workplace needs are evolving in response to these trends. In planning for future employment floorspace, the impact of the trends on the type, nature and location of the buildings accommodating the future workforce must be considered. The main changes to future building typologies and locational preferences are summarised in Figure 5.2, noting the impacts will differ by industry. These trends have been considered specifically to the Monash context in Section 9.6. More details on the influence of trends on workplace typologies and locational requirements by sector is included in Appendix C, Figure C.1 to Figure C.6.

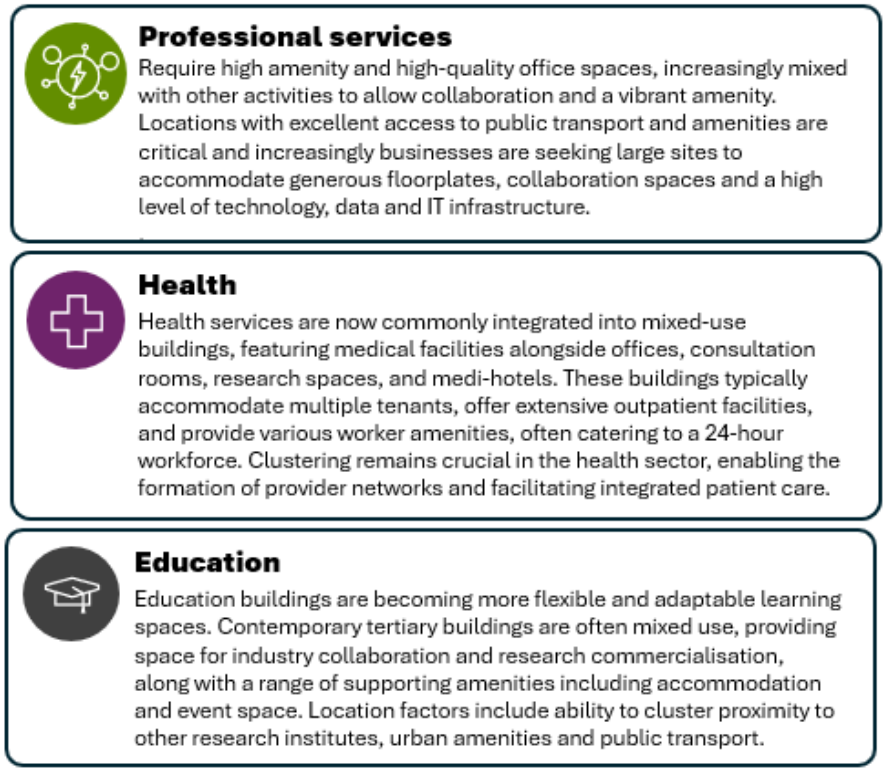


FIGURE 5.2 WORKPLACE TYPES BY INDUSTRY GROUP

Source: AJM JV

5.4 Implications for Monash Structure Plan

The changing nature of work, jobs and workplaces has the following implications for the development of the Monash Structure Plan:

- Monash is well positioned to benefit from some of the broader industry shifts, particularly the growth of skilled workers in education and professional services. The Structure Plan should support growth of Monash's current education offer and complementary R&D and professional services through creating opportunities for these sectors to cluster around Monash University and the large research institutes in the Structure Plan Area.
- For Monash, this will likely continue the transition of the areas' industrial land towards a greater mix of employment typologies, including R&D facilities, advanced manufacturing and distribution, office space (potentially towers and more campus-style) and supporting commercial activity.
- Delivering a high-amenity new town centre which provides a central focus for the range of activities occurring across the Structure Plan Area would be a supportive feature for continued employment growth and intensification. A new town centre could provide spaces for formal and informal collaboration, along with supporting a range of co-working and flexible working models. Mixed uses within the town centre will provide allow a range of businesses to work amongst each other and create vibrancy through additional residents, visitors and workers. Workers more than ever value an appealing work location, during and after work.
- Worker amenities, such as access to public transport, retail, gyms, and childcare, are essential across most sectors. A new town centre around the Monash Station presents an opportunity to support these amenities on a larger scale. Furthermore, the surrounding Industrial Areas should be enhanced with greater worker amenities to stimulate further growth in these areas.

6. Economic Potential

This section considers the economic potential of the Structure Plan Area, highlighting the main attributes and challenges that will impact its long-term economic growth.

6.1 General drivers of economic growth

Figure 6.1 summarises the main drivers of growth which will influence long-term growth and development in the Monash Structure Plan Area. These drivers arise from broader trends in the Greater Melbourne economy and will shape economic growth across the urban area, especially in areas undergoing significant change such as the SRL East corridor. These factors have been considered when defining the competitive strengths of the Monash Structure Plan Area.

The growth in knowledge intensive industries and creating a major employment hub outside the CBD are key general drivers that are supportive of growth in the Monash Structure Plan Area, more so than any other SRL East station location.

6.2 Strengths, weaknesses, opportunities and challenges of local industries

Table 6.1 to Table 6.6 assess the economic competitiveness for employment and economic growth in the Monash Structure Plan Area. It does this by using a SWOC framework which considers strengths, weaknesses, opportunities and challenges. The purpose is to understand the relative strengths and weaknesses of the area generally, and each industry specifically, to identify the competitive potential of the Structure Plan Area over the next 15 to 20 years.

Population growth
Melbourne's population is expected to grow to around 9 million people by the 2050's. A growing population stimulates demand for goods and services and increases the size of the labour force.

Growth in knowledge intensive industries
Melbourne's economy continues to transition towards knowledge-driven sectors and services. SRL East has the potential to unlock major health and education institutions, leading to increased clustering of high-value, knowledge-based employment, strengthening Melbourne's knowledge base and boosting business productivity.

Health and ageing population
Melbourne's ageing population will continue to drive demand for healthcare services and professionals. Similarly, interest and investment in biotechnology will continue to grow with the global ageing population and increasing health complexities. These trends will continue to create demand for health -related spaces including health care, along with dedicated workshop and innovation spaces to support research.

Enhanced connectivity
SRL East will fundamentally shift connectivity and transportation patterns across Melbourne, leading to new economic opportunities. It will allow workers to access new employment, expand the labor workforce pool, and provide students faster access to tertiary education. Visitors and residents will also have rapid access to various precincts, increasing demand for services and retail.

Push for decentralisation
The Victorian Government is committed to decentralising Melbourne, aiming to link the central city to an extensive network of clusters, precincts and gateways, turning Melbourne into a city of centres.

FIGURE 6.1 GENERAL MARKET DRIVERS OF ECONOMIC GROWTH

Source: AJM JV

TABLE 6.1 MONASH GENERAL ECONOMIC SWOC ASSESSMENT

STRENGTHS	WEAKNESSES
• Situated within an established NEIC with the largest worker population outside the Melbourne CBD. The Structure Plan Area is home to significant cluster of research, knowledge and innovation-based industries, anchored by leading institutions including Monash University and a range of highly specialised research facilities. • Recent development of high amenity office parks in the Structure Plan Area shows market support for increased employment density and offices within Monash. • Monash is centrally located to the South East region's large population base. Although lacking non-road based transport currently, the key freeway and highway connections into the area make it accessible. This needs to be complemented by multiple modes of public transport options over time. • Overall, the worker population grew steadily over past decade, adding around 5000 workers and growing at a pace slightly above the average for the South East region. Expansion in education and other population services drove this growth. The growth in population-based services was aligned with an increase in construction industry workers, although this appears linked in part to the fact construction businesses have established head office facilities in Monash.	• The absence of an urban core and insufficient amenities within the Structure Plan Area currently diminishes the attractiveness for office-based industries. This includes a lack of retail, F&B and sense of activity around the Structure Plan Area, outside the University and now M-City at the edge of the area. The urban form of area is very low density and so highly disconnected, with poor pedestrian environments and a heavy reliance on cars. The absence of a permanent residential population central to the core of the employment area contributes to the lack of amenity that could activate the area and make it more attractive for workers. • Despite the size of the Structure Plan Area, much of the land is taken up by Monash University and large, long term institutional uses (i.e. CSIRO, Australian Synchrotron etc). Further growth of these sites is dependent on the plans of these major stakeholders, which may impact ability to accommodate projected employment growth.
OPPORTUNITIES	**CHALLENGES**
• Introduction of the SRL East station along with a new town centre has the potential to significantly transform the local economy of Monash. Notably, it will be the first time Monash is connected via train and will greatly increase its catchment for both workers and students. As identified in Section 4.3, these two elements are the missing factors critical to supporting a greater share of offices in the Structure Plan Area. • Focused investment in and around Monash can strengthen collaboration and partnership opportunities between existing and future users within the Structure Plan Area. This can be through providing new spaces to collaborate and along with infill opportunities brining new businesses of various scales to the Precinct.	• Large areas of the NEIC are located outside of the Monash Structure Plan Area. This includes the significant commercial and industrial areas north of Ferntree Gully Road and towards Springvale Road. The future growth and development of these areas will have some influence on the type, scale and timing of development in the Structure Plan Area, particularly areas located at the perimeter. • Beyond the large institutional land areas (e.g. Monash University, CSIRO), there are only limited further employment land areas which can be influenced by structure planning to facilitate growth.

TABLE 6.2 MONASH PROFESSIONAL SERVICES SWOC ASSESSMENT

STRENGTHS	WEAKNESSES
• Existing state and local policy supports Monash as a key strategic location for high technology, research and development industries, through the co-location and attraction and retention of leading businesses. • Evidence of clustering and agglomeration across the precinct through a range of formalised networks and collaborations. Monash Technology Precinct is a notable example. • Recent construction of high amenity business parks along Ferntree Gully Road shows evidence of demand for space to support a range of professional services. • Planned investment in upgrades to advanced and highly customised research facilities, such as those at CSIRO and the Australian Synchrotron, will guarantee the ongoing operational of these importance facilities in both the medium and long term. Furthermore, it will play a crucial role in attracting various smaller allied research groups to the area.	• Despite the presence of major research institutions and emerging business parks, the Monash NEIC lacks a clear specialisation in professional services when compared to benchmark locations (see Figure 4.3). There is only moderate connection between industry and the key institutions in the Area, meaning it may not operate effectively as true substantial knowledge and innovation cluster currently[15]. Additionally, professional services industries within the Structure Plan Area have experienced low growth in employment at 1.9% per annum over the last decade, falling below the Greater Melbourne average. • Special Use Zoning of Monash NEIC was intended to facilitate transition from industrial to a knowledge, innovation and technology precinct. As demonstrated in Section 3.5, this transition has been relatively slow, particularly in the area around the proposed Monash SRL station.
OPPORTUNITIES	**CHALLENGES**
• As shown in Section 4.3, through the introduction of SRL East and new town centre, Monash has a high propensity to grow a larger office market. Providing a high amenity centre around the SRL East station is central to this. • There is broad market indication of growth through the significant pipeline of investment into R&D facilities in the area. Many of these are substantial investments and have potential to continue to attract further R&D and technology investment into the area. Further review is required to ensure the depth of this market long term and to ensure the area has the required infrastructure and amenities to continue to attract these businesses and associated operations.	• Land around the future SRL East station has opportunity for greater density of professional employment. This would require transition towards a high amenity precinct which includes a greater sense of activity that comes from higher worker and resident density, and amenity including retail and entertainment. To this end, allowing some residential development in the new town centre should be considered as this will assist in creating 24/7 activity and support the facilities that provide amenity for workers. • Development of a core, high-density office precinct to support professional services requires large footprint sites and therefore, site amalgamation in what is currently a small-lot industrial environment for the most part around the future station. This will need to be addressed to attract development and in turn, the professional services workforce.

Overall, professional services will play an increasingly important role in Monash. The new SRL East and town centre will provide a space for professional services to locate and provide the range of amenities and opportunities that is required by this sector. Professional services are still likely to play an ancillary role to the major education and research institutions in the NEIC. As these institutions grow though, they will drive demand for complementary professional services, including business management, other support activities, and related knowledge industry business office needs. Delivery of high amenity town centre remains critical to growing professional services in Monash.

[15] *Survey of companies within Monash NEIC found a significant portion of companies did not have any professional networks in the area. Source: J. Miao (2023) Knowledge spillover, innovation and the built environment: a comparative study of three Industrial Areas.*

TABLE 6.3 MONASH SWOC HEALTH ASSESSMENT

STRENGTHS	WEAKNESSES
• Whilst the key Monash NEIC health offer is located in the Clayton Structure Plan Area, health in the Monash Structure Plan Area has performed well over the past decade from a jobs growth perspective. This sector more than doubled jobs form 2011 to 2021, albeit from a low base and there were still only 800 workers in 2021. The number of health workers is likely to have grown further since 2021, with the recent opening of the Victorian Heart Hospital. The Hospital is estimated to employ around 850 workers, further doubling health workers in the Structure Plan Area. • The new addition of the Victorian Heart Hospital has the potential to attract complementary further research and health business in the short to medium term. It also likely to strengthen ties towards the southern half of the NEIC in Clayton.	• None identified.
OPPORTUNITIES	**CHALLENGES**
• SRL will enable direct access to large health precincts along the corridor including the Monash Health Precinct in Clayton (the southern part of the NEIC) and the Box Hill Health Precinct, providing opportunities to foster collaboration and innovation with R&D businesses at Monash. • New opportunities to improve linkages across the NEIC, including between the University and the Monash Health Precinct in the Clayton Precinct. Similarly, the northern half of the Monash University, towards the future SRL Station. • Rail access to Monash University will open up opportunities to grow the student base and collaboration with other health and education institutions along the SRL East corridor. • Presence of the Victorian Heart Hospital highlights the suitability of Monash for health uses, and potential long-term role to support the health precinct in Clayton, should that area face capacity constraints. • Population growth in the Structure Plan Area will generate some demand for local health services and these can be accommodated in the future town centre.	• The key new health facility within the Structure Plan Area, namely the Heart Hospital, is removed from the future SRL East station in Monash. Therefore, growth in health employment in this location will not be driven materially by the station introduction itself. Any health-related activity in a new town centre around the station will not significantly leverage the Heart Hospital. Linking these parts of the Structure Plan Area through further public transport will be important.

Overall, the health sector has grown strongly with the recent opening of the Victorian Heart Hospital, which was not reflected in the 2021 health worker estimates. Otherwise health is likely to retain a supporting role in the Structure Plan Area with the southern part of the NEIC, in the Clayton Structure Plan Area, the focus for a larger health cluster. Population growth will create demand for local health services in the future town centre.

TABLE 6.4 MONASH EDUCATION SWOC ASSESSMENT

STRENGTHS	WEAKNESSES
• By virtue of Monash University's presence, education is a clear specialisation for the Structure Plan Area and one of the leading education precincts in Melbourne and nationally. • Education jobs grew relatively strongly over the past decade, by over an additional 2000 workers and faster than regional or Greater Melbourne comparators, at 3.9% per annum. • Monash's student base has grown steadily at their Clayton Campus, despite COVID-19 impacts. In 2023, almost 52,000 students were enrolled at the Clayton Campus, up from 46,000 in 2019[16]. • Monash University has been highly active in developing the broader research cluster around the University and instrumental in the Monash Technology Precinct (MTP). The University plays an important role driving investment, partnerships, R&D, education and employment opportunities for their graduates. Similarly, the Monash Precinct Network (MPN) is a multi-partner organisation created to accelerate engagement and innovation with industry, education, research, government and supply chains in the MTP and Greater Southeast Melbourne. • The Education industry in the Structure Plan Area grew strongly over the past decade, on average at 3.7% per annum.	• More clarity is needed regarding Monash University's long-term strategy for expanding its student body and further developing its Clayton Campus. There remains a reliance on the University's plans for delivering education employment growth outcomes.
OPPORTUNITIES	**CHALLENGES**
• It is reasonable to expect Monash University will continue to steadily grow its educational offer, increasing student numbers at the Clayton Campus. This will in turn drive education employment in the Structure Plan area. • SRL East can contribute to sustaining the continued growth of Monash University, aiding in the realisation of forecast job growth, particularly within the education sector. Furthermore, it possesses the potential to stimulate growth in population-based industries, as both workers and students contribute to generating substantial demand. • Tertiary education is a priority growth sector for both Victoria and the nation, fuelled by rising domestic and international demand for higher learning. The number of workers in the sector nationally is projected to grow by 22.5 % through to 2031[17]. • Furthermore, there's a governmental emphasis on fostering innovation and research within Victoria[18]. These trends are likely to underpin long term growth of the education sector, particularly at established institutions like Monash University. It also highlights potential for further investment into education and research facilities. • Monash University's MTP and MPN will continue to draw professional services industries to the area, capitalising on the synergies generated by its research and educational roles. This includes associated research centres and institutes linked to its faculties at the Clayton campus.	• Significant jobs growth is forecast for the education sector in the Monash Structure Plan Area. These education employment forecast should be reviewed against Monash University's plans for long term growth. • Given the growth of online learning, growth in tertiary student numbers may not translate to additional students on campus and therefore need for more floorspace. • Monash University has developed primarily as a car-based institution and the core of the University is located a 10-15min walk from the future SRL Station. The Campus layout may need to be reviewed to maximise connectivity with the future rail station.

Overall, the education sector will remain central to the Monash Structure Plan Area. As a nationally important educational precinct, Monash it is expected to expand its offerings, thereby increasing education employment in the Structure Plan Area. This expansion ultimately hinges on Monash University's long-term growth plans for its Clayton Campus. The University already plays a critical role in driving knowledge-intensive research and innovation activities in the area. These opportunities are likely to be further enhanced by the improved connectivity and amenities provided by the SRL East.

[16] Monash University Annual Report 2023, pg 23
[17] Victoria University Employment Projections to 2033 prepared for Jobs and Skills Australia. From https://www.jobsandskills.gov.au/data/employment-projections

[18] Innovation Statement: Driving economic growth and jobs, Victorian Government, July 2023.

TABLE 6.5 MONASH OTHER POPULATION SERVICES SWOC ASSESSMENT

STRENGTHS	WEAKNESSES
• Population serving industries, which include Retail Trade; Accommodation and Food Services, Arts and Recreation Services; Construction, Other Services, are relatively small in the Structure Plan Area, reflecting the lack of a major activity centre central in Monash. • Population services doubled from 2000 to 4000 workers over the past decade. This was mainly attributed to construction workers who are occupying mixed industry/office space in Industrial Areas and to a lesser extent, growth in retail trade likely associated with the M- City Shopping centre at the southern perimeter of the Structure Plan Area.	• Lack of existing activity centre has limited growth of population services to date.
OPPORTUNITIES	**CHALLENGES**
• Population serving industries currently play a small role in the Structure Plan Area but have opportunity to increase aligned with population, worker and student growth in and around Monash. • Delivery of a new town centre around the Monash SRL East Station will provide the foundation for a larger population services offer, particularly for retail and accommodation and food services. • Anticipated worker and student growth will drive demand for other population services going forward, in particular retail, F&B and entertainment uses. If residential uses are incorporated into the Town Centre, this would further support demand for other population services. • Growth in students and workers could also underpin demand for further accommodation. • There may be opportunity for further population services activity along the Princes Highway corridor, expanding from recent development of M-City with showrooms and other commercial premises.	• The resident population is and will be highly dispersed. While the vicinity of the SRL East station is a logical location for retail development, it is some distance from the large existing residential areas. These residential areas present little opportunity for sizeable retail offers due to them being isolated residential pockets and already well-established residential areas. These areas are also not contiguous so to service them, a small retail offer may have to be located proximate to each (particularly the area east of Blackburn Road where there isn't a commercial/retail area of note). • Some construction jobs are concentrated in the Industrial Areas. These may transition out of the Structure Plan Area as these areas move towards higher density employment uses. This may result in a loss of construction jobs in the Structure Plan Area.

Overall, the other population services sector is expected to grow to accommodate a larger population of workers, residents, and students across the Structure Plan Area. A new town centre will become a focal point for retail activity and support the growth of complementary food and beverage, recreation, and entertainment uses.

TABLE 6.6 MONASH INDUSTRIAL SWOC ASSESSMENT

STRENGTHS	WEAKNESSES
• Monash's Industrial Areas collectively support around 11,500 jobs although only around 44% of these jobs are in the industrial sector highlighting the mixed employment nature of these "industrial". • State and local policy support the transition of these Industrial Areas, which are now have Special Use zoning. These areas form part of the Monash Technology Precinct which are considered key strategic locations for high technology, research and development industries through the co-location and attraction and retention of leading businesses. • **Ferntree Gully Precinct:** Medium density office is emerging in some parts of the SRL East Structure Plan Area in support of existing industrial activity, particularly the Ferntree Gully Road Industrial Area which is being tenanted by knowledge-based businesses. • **Blackburn Road Industrial Area:** This area is less intensively developed than the Ferntree Gully Precinct but is home to key facilities such as the Australian Synchrotron, Monash Biomedical Imaging and the Melbourne Centre for Nanofabrication. Pockets of this Precinct towards the corner of Wellington Road and Nantilla Road are transitioning towards mixed employment uses including some office uses. • The Ferntree Gully Road and Blackburn Road Industrial areas support a large range of computer system design and electrical/electronic goods wholesaling, and engineering services. These uses broadly align with the broader innovation and R&D potential of the area.	• **Industrial sector jobs** remained relatively stagnant in the SRL East Structure Plan Area over the last 10 years, with losses mainly in manufacturing services. There were some gains in wholesale trade. • Similarly, within the existing Industrial Areas, industrial jobs have grown since 2011, but was down from 2016 which may in part reflect the COVID impacts on worker numbers on site in 2021, but also potentially a decline in the level of business activity. • Large parts of the Industrial Areas are occupied by local businesses and small industry in low-density facilities that are not well aligned to the current vision of the NEIC, such as automotive repairs. These may transition slowly over time.
OPPORTUNITIES	**CHALLENGES**
• **Ferntree Gully Road Industrial Area:** This area's proximity to the SRL East Station and new town centre means it should be supported to continue its transition towards a range of knowledge intensive activities. This will ultimately require a transition that sees the local businesses that are not aligned in the core station area (e.g., auto repairs, light industrial services) move out of the precinct over time. Industrial activity is likely to transition towards higher value activities, aligned with the NEIC vision such as technology, advanced manufacturing and R&D. However, given small lot sizes and proximity to the future town centre, these may be higher density industrial uses or office uses in areas of the Precinct further from the station. • **Blackburn Road Industrial Area:** This area has less accessibility to a future town centre and station and is dominated by several large institutional uses (i.e. Australian Synchrotron, Moderna etc). This area has opportunity to transition with infill development to increase employment density. Larger-scale office development should be supported (subject to managing interfaces with the operations of the Australian Synchrotron), while Henderson Road/ Nantilla Road could also transition, building on the facilities recently developed/developing along Wellington Road. Larger lots in this area could support a broader range of future higher value technology, R&D and advanced manufacturing uses along with office space.	• **Ferntree Gully Road Industrial Area:** Further planning may be required to facilitate the transition of industrial uses to office and advanced manufacturing. Without significant land amalgamation, while the land use will change gradually, the desired outcome of a high-density, high-value, employment precinct will take an extended period to emerge, with smaller format local businesses still occupying land in the core for the time being. • **Blackburn Road Industrial Area:** Transitioning of the Henderson Road/Nantilla Road area will need to be supported by clear economic vision and strategy. This area will area will continue to be influenced by development further west, but areas in the north have potential as they are closer to the SRL station and could support more office style development.
Overall, the industrial sector is expected to continue playing a role in the Monash. This role is likely to shift further towards specialised and advanced manufacturing and research functions. This transition is already underway and aligns with the policy intent of the Monash NEIC. As part of this shift, Industrial Areas are likely to accommodate a greater mix of office-based activities, particularly around the Ferntree Gully Road Industrial Area. The Blackburn Road Industrial Area is likely to continue to support the large anchor uses and transition towards higher density employment uses. The ongoing transformation of Monash's Industrial Areas may require encouragement for redevelopment and enhancements to worker amenities.	

6.3 Implications for Monash Structure Plan

Table 6.7 summarises Monash's competitive strengths, future employment generators, and potential economic and employment role by 2041. The Monash Structure Plan Area should seek to support the growth of key sectors in appropriate locations.

TABLE 6.7 MONASH STRUCTURE PLAN AREA ROLE IN 2041

	ROLE IN 2041
Regional employment role	*Monash will continue to evolve as knowledge and innovation precinct of global impact. It will become the destination in Melbourne for businesses who seek to locate near leading R&D and advanced manufacturing institutes and the growing research and commercialisation capacity of Monash University. A new town centre can provide a variety of spaces for business and a high level of amenity for the growing workers, students and residents.*
Competitive strengths of Monash	• **Large established workforce and student population:** The potential workforce size and student population of the Monash Structure Plan Area is anticipated to grow substantially, in part due to SRL East. Improved accessibility will mean better connections between businesses, institutions and their workforces and students, enabling better matching of skills to job and agglomeration benefits. Agglomeration benefits could include attracting employees, opportunities for knowledge-sharing and attracting more customers, along with the research offer presented by Monash University and surrounding research institutes. • **Monash University:** Monash University is the largest landholding of the Structure Plan Area and a leading university with over 49,000 students at its Clayton Campus in 2022[19] and an exemplary research program, which connects the university with a range of institutions and businesses across the Monash Structure Plan Area. How the university grows and evolves over the next 20-30 years will be critical to the future of the area, establishing the direction, and attracting businesses, research, and investment. • **Growing R&D and knowledge intensive industries cluster:** The Monash NEIC has a critical mass of leading education, health and research facilities, including Australia's largest university (Monash University), the Australian Synchrotron, the Melbourne Centre for Nanofabrication, Monash Medical Centre, CSIRO's largest site in Victoria, and the Monash Enterprise Centre. The substantial pipeline of investment into research and development facilities within the area is a clear indicator of broad market growth. Many of these investments are substantial and are poised to play a pivotal role in the future employment growth within the Monash Structure Plan Area. This will influence the building typologies needed. • **Connectivity to CBD and SRL East Precincts:** Currently, Monash has limited public transport options and heavily depends on cars. With the implementation of SRL East, Monash workers will have a direct connection to SRL East, offering rapid access to key precincts in Melbourne's South East, including other areas like Clayton, which is part of the same NEIC. SRL East will also link Monash to the existing MTM rail network, facilitating access to central Melbourne and other parts of the metropolitan rail network, and opening up potential new opportunities for workers, customers and business. • **SRL East policy support:** A robust planning framework which goes beyond the existing land use planning framework by encouraging and incentivising new employment developments, will further Monash's competitiveness against the CBD and other activity centres across Melbourne and can help attract new business and investment to this precinct. • **Transition of industrial land:** While there are key institutions and operations aligned to Monash as an "innovation" precinct, there are still large parts of the precinct that support still low-intensity industrial uses (e.g. near the station core and the south eastern edge of the Structure Plan Area. The extent of transition of these uses to higher-value and density employment will influence the future of the precinct. There are also substantial employment areas which are located outside the Structure Plan Area but within the NEIC. These include areas generally north of Ferntree Gully Road and industrial/business park areas towards Springvale Road. • **Potential for a new town centre.** A new Monash Town Centre around the future the SRL East Station would create a true core within Monash. This potential town centre could provide a high level of amenity to support office-based businesses and a wide range of population services. Additionally, it could make mixed-use development in select locations more feasible, support increased business activity, and drive higher employment outcomes near the Station. Adding residential activity in the vicinity would generate higher levels of activity, contribute to a 24-hour economy, and drive demand for various population-based services. Should the Town Centre accommodate say around half of the 7900 additional residents projected in the Structure Plan Area, that could equate to around 4000 people. This would be sufficient to support an active Town Centre, also supported by workers and other residents in existing residential areas nearby.

[19] City of Monash Economic Profile 2023 page 8

	ROLE IN 2041	
Sector roles (Industries listed in order of future opportunity)		1. **Education:** Defined by Monash University, Monash will continue to be a leading education and research precinct, both in Australia and globally. Monash University is already enhancing the R&D capabilities of the Structure Plan Area and will remain a significant contributor to job growth, driving demand for various services and activities across multiple sectors.
		2. **Professional Services:** With the development of the new Station and town centre, professional services will play an increasingly significant role in the Structure Plan Area. These services have the potential to continue expand by leveraging the presence of the University and other large institutions in the area.
		3. **Other Population Services:** Increasing amenities and population-focused services will be essential to support the future growth of residents, workers, and students in the Monash Structure Plan Area.
		4. **Industrial:** The industrial sector in the Structure Plan Area is likely to evolve, moving away from traditional manufacturing and wholesale trade towards specialised industrial activities that leverage the R&D focus of the Structure Plan Area. Industrial areas may also transition to more mixed uses, offering a variety of spaces, including office areas, to support a growing workforce.
		5. **Health:** The health sector is expected to continue playing a minor role in the Monash Structure Plan Area. The recent addition of the Victorian Heart Hospital will be reflected in employment projections and allow for modest growth. However, the primary health function will remain in the southern half of the NEIC, within the Clayton Structure Plan Area. Population growth will create some demand for local health services in the future town centre.

Part C: Future Employment Floorspace Demand

Part C includes:

- **Section 7** summarises the methodology for estimating employment floorspace demand in the Structure Plan Area.
- **Section 8** identifies which sectors are expected to generate the most jobs growth in the Structure Plan Area.
- **Section 9** assesses the amount and form of floorspace needed in the Structure Plan Area to support this jobs growth, as well as the most appropriate locations.

7. Methodology for estimating employment floorspace demand

This section summarises the methodology used to assess the amount of employment floorspace required to support projected employment growth in the Structure Plan Area.

7.1 Use of employment projections and floorspace modelling

The employment projections are derived from CityPlan projections generated for the SRL Business and Investment Case. As described in Section 1, CityPlan is most effective representing strategic-level demands and patterns, and its reliability may diminish when the data is broken down by industry at a small-area level. The total job estimates for the Structure Plan Area are considered reliable for the purpose of structure planning. Nonetheless, to estimate floorspace demand by land use type, it is essential to analyse CityPlan job projections by industry at a small-area level.

It is important to recognise that while this report uses these projections as the best available information to estimate floorspace demand by land use type, the job and floorspace mix by industry may ultimately differ. This should be kept in mind when reviewing the calculated floorspace demand by land use type. The floorspace projections by use should not be considered definitive.

A common example is when industrial sector employment is projected to grow, but recent trends show a decline in industrial jobs at the local area, particularly as older industrial areas within a Structure Plan Area transition to other uses. In such cases, while the projections are used, the report highlights areas where actual growth in a specific industry may deviate from the forecast. This provides insight into how critical it is to accommodate the projected floorspace by specific land use type. Ultimately, the key priority is to ensure that the total jobs and overall employment floorspace are adequately provided in appropriate locations.

7.2 Overview of methodology for assessing floorspace demand

At a high level, the process of estimating floorspace demand involves the following steps:

1. **Review of employment projections by industry group** for the Structure Plan Area to understand the alignment with the industry outlook and future vision for the area. The detailed process for this review, and importantly, the limitations of the employment projections, are outlined in Section 7.3.
2. **Determine the distribution of employment across different land uses;** that is, the share of employment in each industry allocated to various land use types.
3. **Establish workspace ratios** (WSRs) for each land use type, indicating the amount of floorspace per employee / worker.
4. **Calculate future floorspace demand.** The estimate of future floorspace demand is calculated by:
    a. Multiplying the 2041 employment projection for each industry by the share of that industry's employment allocated to each land use
    b. Multiplying the employment allocated to each land use by the workspace ratio for that land use.

This method enables the adjustment of workspace ratios and employment land use shares at a Structure Plan Area level to reflect the unique nature of employment in each area. An example of this calculation is described here, noting the below are generic numbers for illustration:

1. Total Health jobs for the Structure Plan Area are an estimated 10,000 in 2041.
2. Health jobs in the Structure Plan Area in future are estimated to in future comprise 60% on dedicated health floorspace (such as a hospital) and 40% on office land uses.
3. The workspace ratio for the health land use is estimated at 40 per worker, with 20 sq.m per worker for office land use.
4. The health land use floorspace estimate is therefore 240,000 sq.m (10,000 workers x 60% x 40 sq.m) and for office space 80,000 sq.m (10,000 workers x 40% x 20 sq.m).

This process is repeated for each industry group to forecast total floorspace demand for each land use type.

Where appropriate, tests have been undertaken to ensure known future supply would fit within the projected outcomes. For illustration, if a development was under construction in the Structure Plan Area that was to deliver office floorspace for 1,000 health care and social assistance jobs, the future movement of health care and social assistance jobs into office floorspace would be adjusted to ensure this known supply is accounted for.

The high-level methodology is shown in Figure 7.1 adjacent. More detail about the methodology for assessing floorspace demand is provided in Appendix E. The following sub-sections describe in detail the estimation of the distribution of industry employment into different land uses, and appropriate workspace ratios.

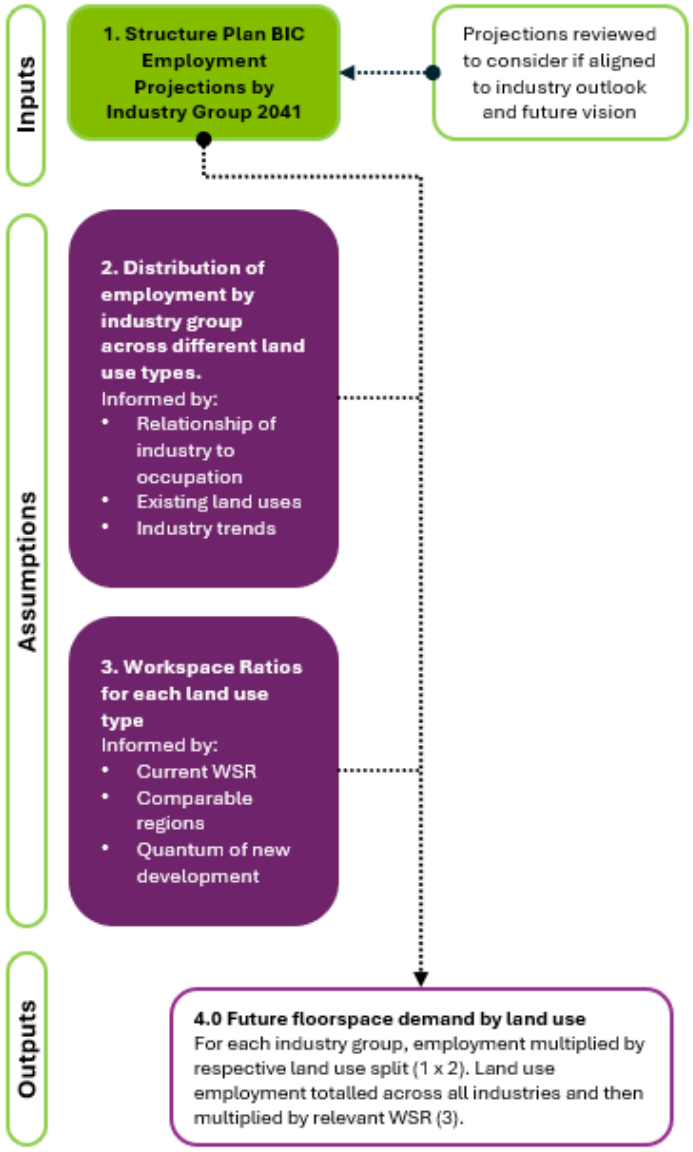


FIGURE 7.1 OVERVIEW OF FLOORSPACE DEMAND METHODOLOGY

Source: AJM JV

7.3 Review of employment projections

The employment projections are derived from CityPlan projections generated for the SRL Business and Investment Case. Given the limitations of using this dataset at the small-area level (refer discussion in Section 7.1) the employment projections were evaluated by taking into account the following factors:

To this end, the employment projections for the Structure Plan were evaluated by taking into account the following factors:

- The current economic role and competitive strengths of the Structure Plan Area
- Historical industry and employment patterns
- Broader industry trends and forecasts
- Consideration of the anticipated employment role and focus of the Structure Plan Area.

This review is summarised in Appendix D.

The aim of is activity is **not to create revised employment projections** for the Structure Plan area, but to highlight where the industry mix may vary from that projected or where additional support may be required to achieve the total employment projection for the Structure Plan Area.

7.4 Deriving employment land use shares

Employment land use share refers to the distribution of workers by land use type.

These proportions capture the distinct employment characteristics of certain areas alongside overarching trends in each industry. For instance, in the industrial sector, the prevailing trend towards job automation suggests that employment will shift towards supportive or administrative roles in office space rather than manual or traditional industrial positions in industrial space.

To estimate the proportion of employees in each industry allocated to various land use categories by 2041, the following steps were undertaken:

- **The relationship between occupations and industries was reviewed**. Using ABS Occupation level 4 data, cross-referenced against the industry of work (that is, a worker in occupation x is employed in industry y, z, etc.) provides an indication of the type of floorspace or land use required for an occupation mix (such as an accountant employed in the industrial sector more likely creates a need for office space rather than industrial land use typologies).
- Analysed data from the floorspace audit in the Structure Plan Area to understand the **potential land uses** workers recorded in each destination zone could work in.
- Manual checks where appropriate to assess any significant deviations from normal range of workspace ratio outcomes.
- Assessed the **shift in workers by industry toward different floorspace types** over time outlined earlier in this report (such as health workers using office space at a higher intensity), considering available time series data indicating change over time in workspace ratios (such as the City of Melbourne Census of Land Use and Employment).

This process is described more in Appendix E, with details of the assumptions adopted for the Structure Plan Area shown in Section 9.

7.5 Deriving workspace ratios

Workspace ratios represent the amount of floorspace allocated to each worker in a work environment. Although there are typical ranges that are often noted, these can fluctuate depending on factors such as location, industry sector, and the specific needs of individual businesses.

This analysis undertaken establishes a workspace ratio for each land use type (such as office, health, education, retail) as opposed to a workspace ratio for each industry. This is due to there being variation between workspace ratios in an industry, depending more on the nature of the occupations and workspaces used in that industry in a particular location.

To estimate the workspace ratio for each land use type at 2041:

- Based on the density of employment over land area in the ABS's Statistical Areas Level 2 (SA2s) around Australia, **the nature of development and building typologies were reviewed** in other precincts to identify areas that are likely comparable to the future outcome in the Structure Plan Area. These comparable help inform the appropriate future workspace ratios and likely levels of growth.
- The **current workspace ratio of each land use type in the Structure Plan Area was estimated** by combining the floorspace audit with jobs by industry and destination zone geography derived from the 2021 ABS Census of Population and Housing. This is brought to a Gross Leasable Area (GLA) level to be comparable with benchmarks. This was done referencing building-level City of Melbourne CLUE data to remove common areas and similar spaces.
- Estimates of current average workspace ratios across different regions in Australia were reviewed to understand **how the Structure Plan Area compares to other regions** and to understand where workspace ratios might move over time. This comparison indicates the efficiency of the space used relative to current standards elsewhere, noting workspace ratios can be influenced by factors such as the age and nature of floorspace, the presence of vacant space, and the specific types of jobs supported in an industry.
- Available data on annual growth in locations around Australia were reviewed and tested where the Structure Plan Area would sit along the range of historical values at different workspace ratio scenarios. In conjunction with the first check, this allows for a sense check on the level of growth that would need to occur to reach an overall workspace ratio outcome. For example, if a Structure Plan Area without a hospital would require health jobs to grow at a level that is comparable to Parkville in Melbourne to reach a workspace ratio outcome, this would be deemed not appropriate.
- **How much of the future floorspace will be new versus old was estimated**. Newer, modern buildings are typically more efficient, accommodating more workers for a given floor area (that is, a lower WSR). The greater the share of future floorspace that will be new, the greater the shift down to more efficient workspace ratios for the area. The proportion of space that is new vs. old is estimated using benchmarks from the City of Melbourne Census Land Use and Employment (CLUE) data and the City of Melbourne Development Activity Monitor. For example, there was an additional 800,000 sq.m of office floorspace added to the City of Melbourne in the past decade, but the difference in the count of total stock was only 400,000, it can be assumed that 0.5 sq.m is removed for each sq.m of new stock.
- **Downward trend in workspace ratios as a result of flexible working arrangements.** The increasing prevalence of flexible working arrangements has led to a reduction in the amount of floorspace needed to host workers per day. If a worker moves from needing 20 square metres of employment across five days down to four days per week, on average they will require 16 square metres per week (4 days/5 days times 20 sq.m of floorspace). This will put generalised downward pressure on most floorspace typologies.

Bringing all of these checks together, a narrower range of possible WSRs can be tested to determine a workspace ratio that reflects appropriate benchmark locations, aligns with broader workspace trends for that industry, and suits the context of the Structure Plan Area.

7.6 Peer review

This technical report has been independently peer reviewed by Julian Szfraniec of SGS Economics & Planning. The peer review report is attached as Appendix F of this report, which sets out the peer reviewer's opinion on the SRL East Draft Structure Plan - Economic Profile Technical Report.

8. Employment projections

This section presents the employment projections for the Structure Plan Area and at a high-level, assesses how appropriate these projections are in terms of their alignment with the anticipated future role of the Structure Plan Area.

8.1 Monash Structure Plan Area employment projections

Figure 8.1 shows the employment projections to 2041 for the Monash Structure Plan Area. Comparable numbers source from the 2011 and 2021 Censuses provide context to the projected growth.

Compared to recent trends, the employment projections represent a significant upwards step change for the trajectory of employment growth in the Monash Structure Plan Area. Whether the change anticipated from the introduction of SRL East and supportive policy environment is sufficient to support this growth is discussed more in the next sub-section.

Table 8.1 shows the employment projections by broad industry groups as well as the comparison at a total level between the 2041 projections at the 1600m level with the Structure Plan Area. All sectors are forecast to grow strongly in the Monash Structure Plan Area to 2041:

- Education and training is forecast to see the second highest increase, with an additional 375 workers per year. This is an increase on the historical volume growth at 270 per annum between 2011 – 2021. This growth will rely heavily on Monash University.
- Health care and social assistance jobs are expected to grow from 800 to 1700 between 2021 and 2041. A significant share of this growth has already been seen with the addition of the Victorian Heart Hospital in 2023.
- BIC forecasts predicts that the most growth in Monash will be in professional services employment within the Structure Plan Area, necessitating a substantial turnaround from the modest growth observed over the past decade.
- Other Population Services is forecast to grow strongly, to serve a growing number of residents, workers and students.
- Industrial employment, although declining over the last decade, is forecast to grow strongly. This turnaround will need to reflect a significant transition from traditional industrial areas, to a place for higher tech research and development, including a mix of industry and office space.
- The proportion of employment within a 1600m radius of the Monash SRL station that will be within the SRL East Structure Plan Areas is expected to increase from around 60% in 2021 up to 70% in 2041.

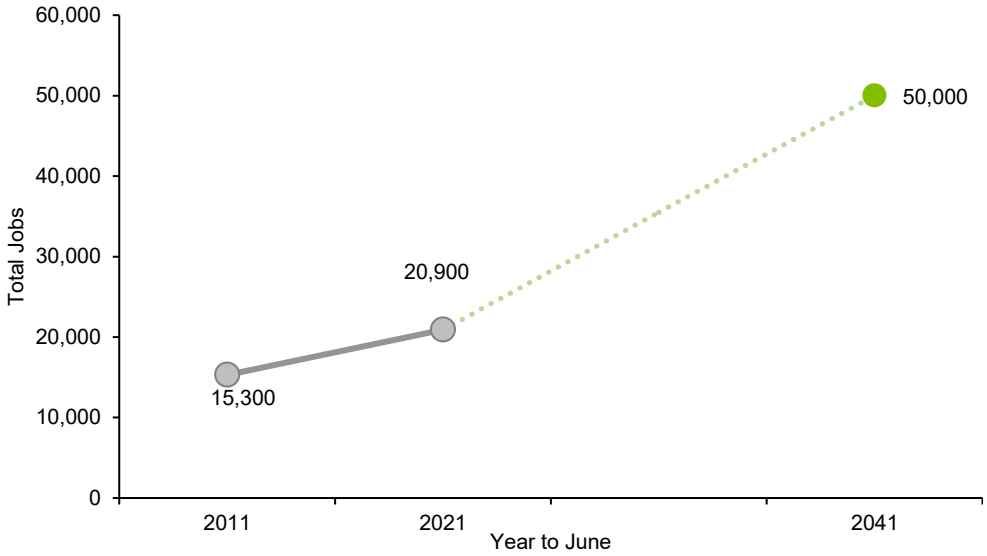


FIGURE 8.1 HISTORICAL AND FORECAST EMPLOYMENT IN THE MONASH STRUCTURE PLAN AREA, 2011–2041

Note: Growth between dots will not be linear, lines are illustrative.

Source: ABS Census 2011 and 2021, Derived from CityPlan (published in SRL BIC); AJM JV

TABLE 8.1 MONASH STRUCTURE PLAN AREA TOTAL WORKERS AND ANNUAL GROWTH BY INDUSTRY, 2011 – 2041

BROAD INDUSTRY SECTOR	WORKERS			ANNUAL CHANGE (NO.)		ANNUAL CHANGE (%)	
	2011	2021	2041	2011-21	2021-41	2011-21	2021-41
Education and Training	5300	8000	15500	270	375	4.2%	3.4%
Health Care and Social Assistance	300	800	1700	50	45	10.3%	3.8%
Professional Services	3800	4600	15700	80	555	1.9%	6.3%
Other Population Services	2000	4000	9700	200	285	7.2%	4.5%
Industrial	4000	3500	7400	-50	195	-1.3%	3.8%
Structure Plan Total	**15,300**	**20,900**	**50,000**	**560**	**1455**	**3.2%**	**4.5%**
1600m Total	**26,100**	**34,300**	**72,000**	**820**	**1885**	**2.8%**	**3.8%**

Source: ABS Census 2011 and 2021, CityPlan for 1600m and derived from CityPlan for Structure Plan Area (published in SRL BIC),; AJM JV

8.2 Review of employment projections

This sub-section reviews the projections for the Structure Plan Area at a broad industry level to assess their alignment with the industry outlook and future vision for the area.

As noted in Section 7.1 the employment projections are derived from a metropolitan-wide strategic model, they are best used for regional or corridor analysis rather than at a small area level. While it provides accurate total employment figures at the Structure Plan Area level, the industry breakdown may be less precise, particularly for smaller industries.

Therefore, it is necessary to conduct a sense-check to ensure that projections for the Structure Plan Area align with expectations for future growth. This evaluation is crucial because if the forecasts are overly optimistic, there might not be as great a requirement to accommodate modelled floorspace demand. Conversely, if the projections are thought to be accurate or potentially on the low side, accommodating the necessary floorspace becomes imperative.

When evaluating the general suitability of the Structure Plan Area industry projections, these questions were considered:

- Do the projections align with the present economic conditions and past growth patterns?
- Do the projections correspond with wider industry trends?
- Do the projections align with the vision for the Structure Plan Area and its competitive strengths?
- The overall alignment of the industry projections is subsequently assessed.
- Table 8.2 summarises the extent to which the industry projections align with expectations of the future order of growth for the Structure Plan Area. The degree of alignment is denoted by a traffic light system colour (green, amber, red). More detail about the assessment of the employment projections is provided in Appendix D.

TABLE 8.2 MONASH STRUCTURE PLAN AREA REVIEW OF INDUSTRY LEVEL EMPLOYMENT PROJECTIONS

		% SHARE OF TOTAL EMPLOYMENT	REVIEW OF EMPLOYMENT PROJECTIONS	IS THE INDUSTRY-LEVEL FLOORSPACE ESTIMATE LIKELY TO NEED TO BE ACCOMODATED?
	Total Employment	-	Total jobs in the Monash Structure Plan are forecast to double to 50,000 jobs by 2041. This is forecast to be achieved by an increase on the strong growth rate seen in recent years, moving from 3.2% to 4.5% per annum. Increased growth in jobs is likely to be supported by the opportunity created by new rail connectivity, a new town centre within Monash and role of Monash as a NEIC and priority location for investment and funding into knowledge, innovation and research sectors.	Structure planning should seek to accommodate the total additional projected floorspace through to 2041. The total employment projections for the Structure Plan Area are considered an accurate estimate that is an appropriate base to plan for through to 2041.
	**Professional Services**	22%	Achieving the 2041 forecast will require a substantial shift from low to high growth. The market will require to support to achieve this, including timely delivery of new town centre with capacity for large office buildings, working with existing Monash institutions to attract more businesses to the area and ensuring that a future town centre and surrounding commercial areas at Monash are of a suitable scale and amenity to facilitate this transition.	Structure planning should aim to accommodate the projected floorspace demand for professional services to encourage the development and delivery of high-value employment. However, it should be recognised that forecast growth in professional services would require a significant shift from past growth trends that may not match market demand. The SRL station will assist this shift, but further economic development initiatives may be necessary.
	**Health**	4%	The 2041 forecast is suitable for the health sector in the Monash Structure Plan Area, as it reflects the already added Victorian Heart Hospital and additional local health services to meet the needs of a growing population. Potentially higher growth in health is achievable, particularly if the connection with Clayton allows for further spillover of demand.	Structure planning should account for projected floorspace demand.
	**Education**	38%	The 2041 forecast continues strong growth in the education sector, broadly in line with historic trends in the Structure Plan Area in percentage terms, but above in absolute terms. However, realising this growth is entirely dependent on the intentions of the educational stakeholders in the area. Further consideration of Monash University's future growth plans against these strong projections is needed.	Floorspace estimates should be planned for. However, any planning for tertiary education should align with Monash University's long-term plans. Planning for future schools should be considered with the Department of Education and Training.
	**Other population services**	19%	Broadly, the 2041 projection is a reasonable representation of likely growth in other population services, given the planned growth across employment, students and residents, and potential to create a new town centre around the Monash SRL East Station.	Planning for retail floorspace should be guided by SRL East Retail Needs Assessment – Monash. Non-retail other population uses (i.e. accommodation, community infrastructure) should use the estimated floorspace as a guide, but again the specific floorspace demand should align with specialist reports.
	**Industrial**	17%	Achieving the industrial forecasts will require a significant shift in the industry mix to better align with the strategic objectives of the Precinct and broader Monash NEIC. This would consider higher growth in manufacturing and reducing forecasts across the other sub-sectors, most notably transport, postal and warehousing and wholesale trade. It should be recognised that some of the industrial sector jobs will in time be in a broader range of land uses, including office space.	Structure planning should aim to accommodate the projected floorspace demand for industrial but recognise the industrial sector mix will require a significant shift to better align with the strategic objectives of the Monash NEIC. It should be recognised that some of the industrial sector jobs will in time be in a broader range of land uses, including office space.

Source: AJM JV

8.3 Implications for the Monash Structure Plan

The implications of the employment projections for the development of the Monash Structure Plan include:

- Overall, the total employment projections for the Structure Plan Area are considered an accurate estimate that is an appropriate base to plan for through to 2041. Therefore, structure planning should plan for the total additional projected floorspace through to 2041.
- At an industry level, forecasts indicate reasonable growth expectations for the health sector, reflecting the modest local role it will continue to play. Similarly, forecasts for other population services are reasonable and support the establishment of a town centre at the new Monash SRL East Station. Planning should consider the projected demand for floorspace, but also consider the detailed recommendations of the *SRL East Retail Needs Assessment – Monash*.
- Forecasts project much higher employment growth than has been achieved in the past for education, professional services and the industrial sector. These projections may be achieved if there is alignment with the long-term growth plans of key stakeholders, particularly Monash University. Structure planning should seek to accommodate the modelled floorspace demand for professional services and industrial to encourage development and delivery of high-value employment. However, it should be recognised that growth in these areas would require a significant shift from past growth trends that may not match market demand.

9. Future employment floorspace needs

This section presents the anticipated employment floorspace necessary to support the projected employment figures in the Monash Structure Plan Area, along with the specific land use assumptions and workspace ratios utilised to calculate these needs. Consideration is also given to whether the market will deliver the projected growth, and the locational preferences and built-form typologies likely required.

Note:

The role of this report is to translate the employment projections for the Structure Plan Area into floorspace outcomes. Whilst the previous section considered the consistency of the employment projections by industry with past growth and anticipated change in the Structure Plan Area, ***these projections are adopted as the basis of analysis in this section without variation.*** *The key outcome of this section is to identify the floorspace by use required to accommodate the projected employment levels. Given the potential variation in employment outcomes, there may be instances where floorspace requirements are lower or higher than estimates provided in this section. Consequently, at the end of this section, the floorspace estimates are also tested to identify the likelihood of that space being required and how critical it is that structure planning accommodates the estimated floorspace.*

9.1 Structure plan employment land use share assumptions

To project the floorspace requirements for the Monash Structure Plan Area, it is important to first estimate the number of workers by the type of floorspace that they are, or will be, accommodated within.

As described in the methodology (Section 7 and Appendix E); to estimate the share of workers by industry in each floorspace use we have used a combination of estimating the current land use to employment relationship, and reference to observed trends in industry-level shifts towards different land uses in comparable precincts.

Where appropriate, tests have been undertaken to ensure known future supply would fit within the projected outcomes.

Table 9.1 highlights the estimated current and future (2041) split of workers by floorspace type. Significant upward and downward shifts are highlighted.

- Office floorspace in Monash takes the highest proportion of professional services employment. This is typical of professional services which includes industries such as finance, insurance and real estate. Office based employment is also remaining constant or growing in all industry groups bar health, which has a particularly unique distribution due to the addition of the Heart Hospital in 2023.
- Health care and social assistance industry jobs were mostly in office and industrial space in 2021, attached to health research and development around the university. With the addition of the Victoria Heart Hospital heath floorspace quickly becomes the predominant floorspace use (15% to an estimated 93% between 2021 and 2041).
- Most of the education and training jobs are within Monash University and as a result, 91% of all education and training jobs in 2021 were within education floorspace. Out to 2041 there is expected to be more commercial office development that partners with the University to deliver space, such as has occurred around the University of Melbourne in recent years. This has pushed the estimate for education and training jobs into office floorspace up from 9% to 18% in the 20 years to 2041.
- Industrial industry jobs will remain predominantly in industrial floorspace, but an increasing share will go to office space. This office space may be in some way attached or thematically connected to the Industrial Area, like a head office for the nearby high-tech manufacturing.
- There should be more retail floorspace to accommodate the growing population around Monash. This is supported by an increase in the proportion of other population services employment into retail floorspace.

Trends into the future have been assessed with reference to Section 5 and iteratively adjusted through reviewing future developments outlined in Section 3.7.

TABLE 9.1 MONASH STRUCTURE PLAN AREA LAND USE SHARE ASSUMPTIONS

	INDUSTRY SECTORS									
	PROF. SERVICES		HEALTH		EDUCATION		OTHER POPULATION SERVICES		INDUSTRIAL	
LAND USE	2021	2041	2021	2041	2021	2041	2021	2041	2021	2041
Office	85%	85%	56%	5%	9%	18%	32%	49%	31%	46%
Health	0%	6%	15%	93%	0%	0%	0%	0%	1%	0%
Education	2%	1%	14%	3%	91%	82%	1%	2%	1%	1%
Retail	0%	0%	1%	0%	0%	0%	18%	21%	2%	2%
Industrial	5%	4%	13%	0%	0%	0%	43%	20%	66%	51%
Public Use	7%	3%	0%	0%	0%	0%	1%	1%	0%	0%
Accommodation	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%
Entertainment / Recreation	0%	0%	0%	0%	0%	0%	5%	6%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: ABS, CLUE, AJM JV. Yellow highlights significant upward shifts and grey shows significant downward shifts, between 2021 and 2041.

Figure 9.1 across translates Table 9.1 into an employment projection by floorspace type. Note the total number of jobs is still fixed at the 2041 employment projections for the Structure Plan Area. Office will be the largest employing floorspace type, followed by education, industrial and health. This aligns with the key businesses and institutions in the area.

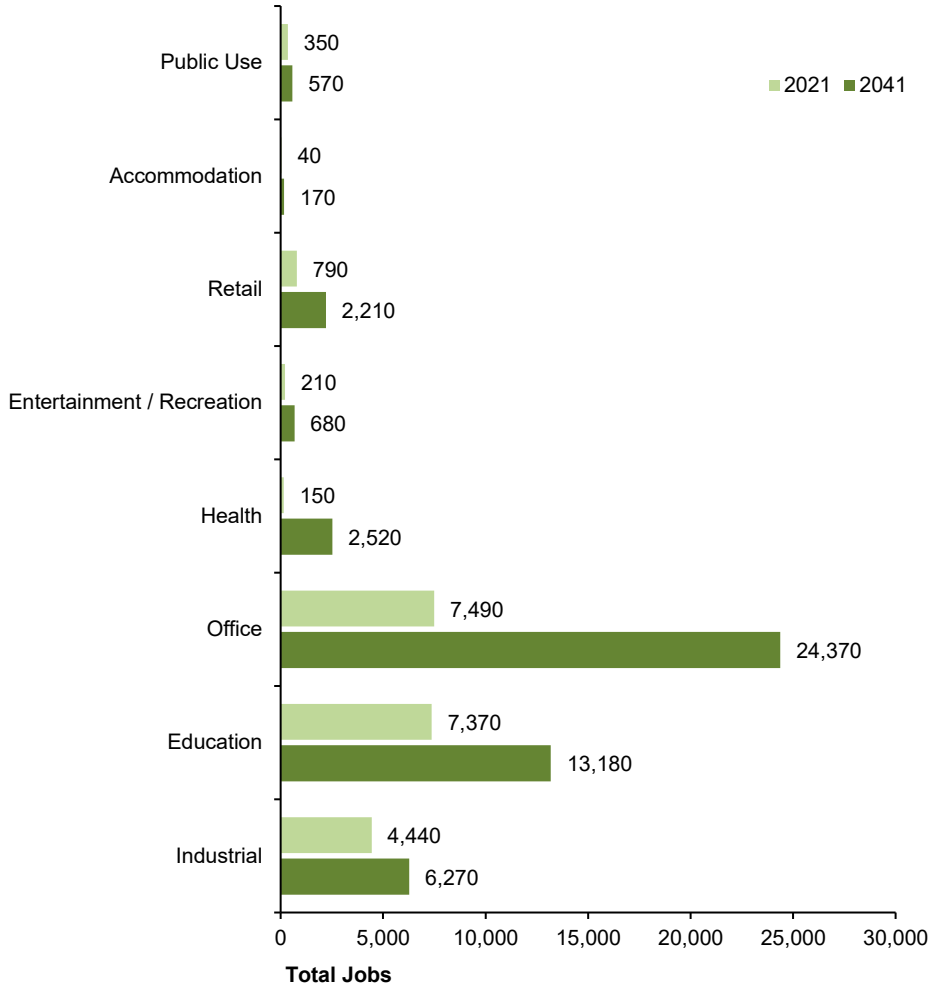


FIGURE 9.1 MONASH STRUCTURE PLAN, NUMBER OF WORKERS BY FLOORSPACE USE, 2021 - 2041

Source: Derived from CityPlan (published in SRL BIC), ABS Census of Population Aged 15+ [2021]; AJM JV

9.2 Structure plan area workspace ratio assumptions

This sub-section considers the second broad key assumption in the employment floorspace modelling being the workspace ratio (WSR): the relationship between the number of workers in a use type and the floorspace required to accommodate them.

See Appendix E for a summary of the key findings of the workspace ratio analysis for the Monash Structure Plan Area. This includes, for each land use, the estimated 2021 workspace ratio, the range identified from assessment of other locations, the benchmark locations identified for the Structure Plan Area with an associated image, results of testing the workspace ratio against projected employment growth, and finally, the estimated 2041 workspace ratio.

By combining the audit of floorspace in Monash with the analysis of current worker numbers within the Structure Plan (Section 3), the workspace ratio of employment as of 2021 has been estimated.

This is important to provide a baseline for future shifts to be incorporated from, and more accurately estimate the need for floorspace going forward.

We note that a different approach is being taken for calculating future retail workspace ratios. Retail floorspace need is calculated in the SRL East Structure Plan - Retail Assessment – Monash independent of the retail jobs projections. Retail jobs are calculated in this report with reference to Section 9.1 using a combination of ABS, AJM JV research and the employment projections for the Structure Plan Area.

A workspace ratio is then derived by comparing the two different sources (floorspace divided by jobs). Since these may not be aligned, the workspace ratio change may be unrealistic. For example, if the projected growth in jobs based on BIC is substantially higher than the estimated retail floorspace need growth, the workspace ratio would decline to unrealistic levels. Any change in retail worker density should be read in conjunction with the discussion on the appropriateness of the BIC employment projections. This can be found in section 8.2.

Given our floorspace audit was undertaken using external building information, no common spaces or otherwise unleasable spaces have been removed from the building extents. To mitigate this, we have provided estimates for Gross Building Area (GBA) which is result of the floorspace audit, and Gross Leasable Area (GLA) which is the typical measure for workspace ratios. GBA to GLA conversion is different by land use with different proportions of total space going to non-employment space such as common areas and storage. This is shown in Appendix E using building level CLUE City of Melbourne data.

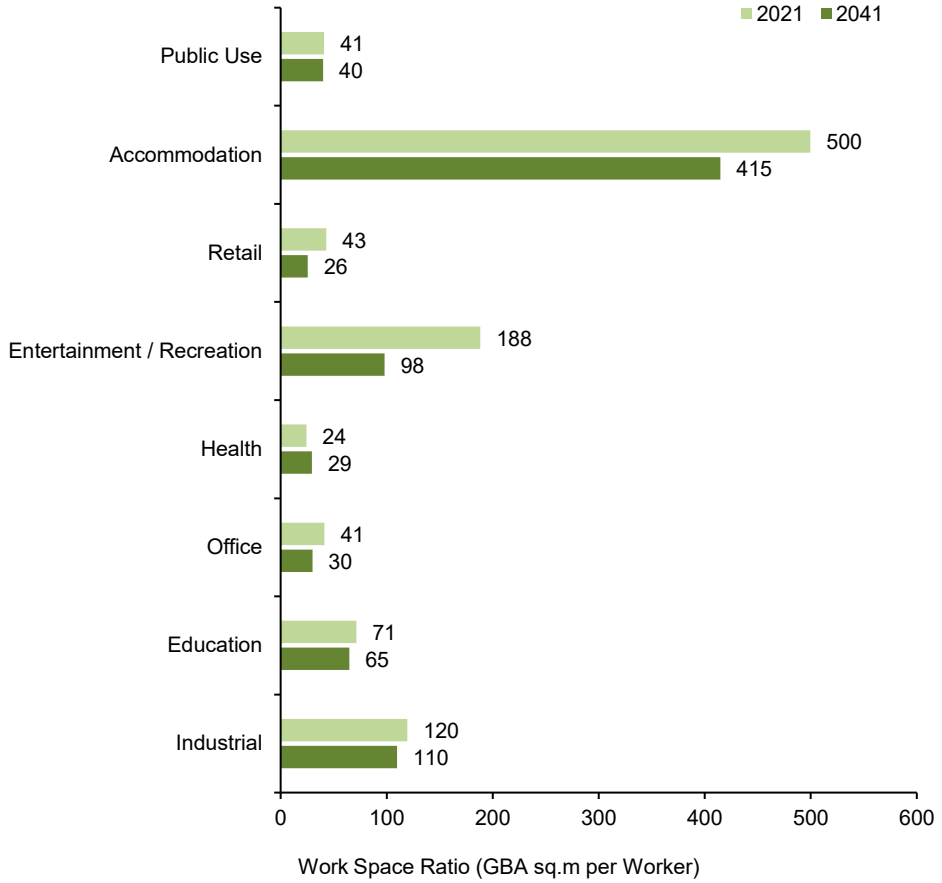


FIGURE 9.2 ESTIMATED WORKSPACE RATIO BY TYPE, GBA, MONASH STRUCTURE PLAN AREA 2021-2041

Note: Retail workspace ratio is calculated by combining the outcomes of the SRL East Structure Plan - Retail Assessment – Monash and retail jobs forecast

Source: AJM JV

9.3 Future employment floorspace demand

Based on projected employment growth and typology/workspace ratio assumptions, the future employment floorspace demand in the Structure Plan Area to meet the BIC employment projections is derived. This is shown in Figure 9.3.

This analysis indicates that realisation of the Structure Plan Area employment projections for 2041 for the Monash Structure Plan Area would require around over 2.56 million sq.m of employment floorspace.

This is an additional 1.05 million sq.m of floorspace above what is currently provided in the Structure Plan Area. We do note that this will be less than the total amount of new development that will occur as this figure is net of space removal. For example, we have estimated that around 410,000 sq.m of additional office floorspace will be required by 2041. Around 90,000 sq.m of office floorspace will be removed to facilitate growth, meaning that total new development is in fact around 500,000 sq.m, rather than 410,000 sq.m.

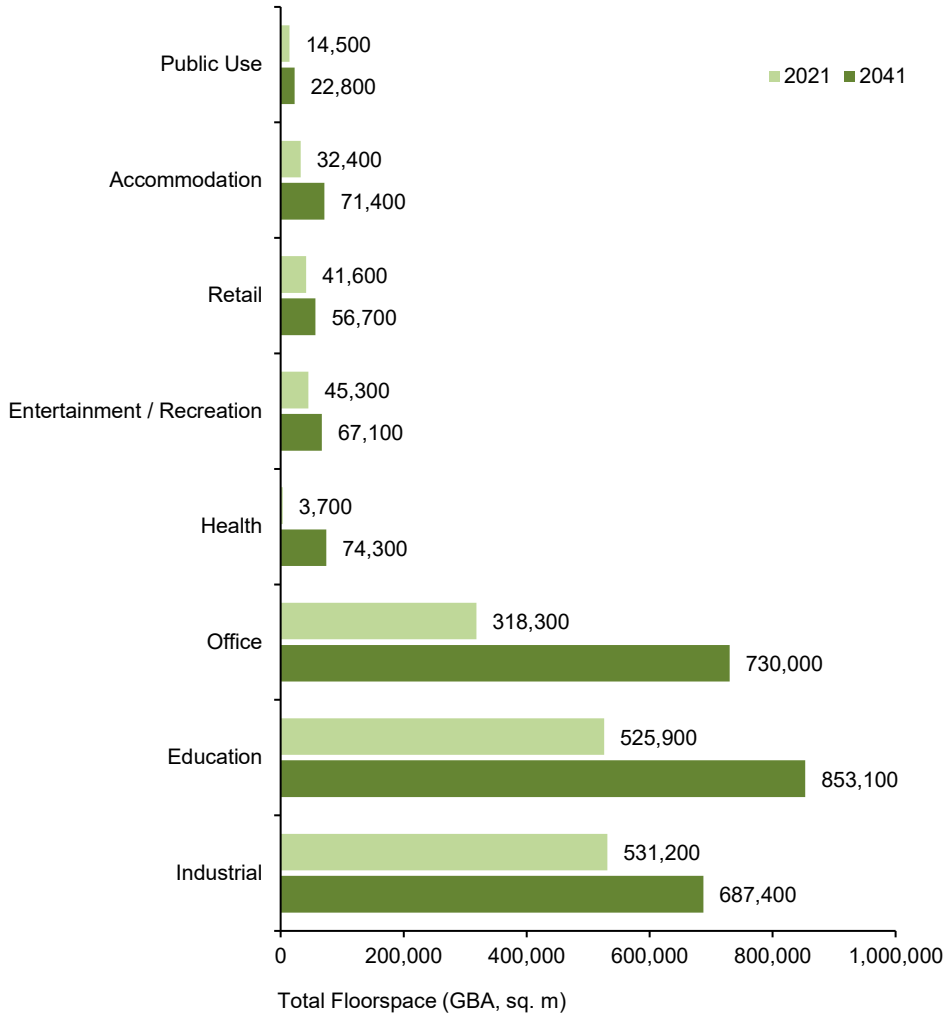


FIGURE 9.3 ESTIMATED EMPLOYMENT FLOORSPACE BY TYPE, GBA MONASH STRUCTURE PLAN AREA 2021-2041

Note: Retail floorspace figure in this table is the mid-point of the GBA range outlined in the Retail Needs Report.

Source: AJM JV

TABLE 9.2 MONASH STRUCTURE PLAN TOTAL JOBS, WSR AND EMPLOYMENT FLOORSPACE, 2021-2041

LAND USE	TOTAL JOBS	AVERAGE WSR (GBA SQ.M PER WORKER)	FLOORSPACE 2021, (GBA)	FLOORSPACE 2041, (GBA)	ADDITIONAL FLOORSPACE 2021-2041 (GBA)
Industrial	6300	110	531,200	687,400	156,200
Education	13,200	65	525,900	853,100	327,200
Office	24,400	30	318,300	730,000	411,700
Health	2500	29	3,700	74,300	70,600
Entertainment / Recreation	700	98	45,300	67,100	21,800
Retail	2200	26	41,600	56,700	15,100
Accommodation	200	415	32,400	71,400	39,000
Public Use	600	40	14,500	22,800	8,300
Total	**50,000***	**-**	**1,512,900**	**2,562,800**	**1,049,900**

**A small number of jobs are allocated to land uses such as student accommodation, aged care, carparking and utilities that are not explored in this report.*

Note: Retail floorspace figure in this table is the mid-point of the GBA range outlined in the Retail Needs Report.

Source: Derived from CityPlan (published in SRL BIC); AJM JV

9.4 Testing employment floorspace demand

This sub-section evaluates whether the market is likely to deliver the employment floorspace demand estimated. This is informed by assessing historical growth and development, as well as the current development pipeline, as detailed in Section 5. This indicates if there is evidence of existing market appetite for development of the scale required to meet employment and floorspace projections. It also informs consideration of whether further actions to support the delivery of employment floorspace in the Structure Plan Area will be necessary. Future interventions may include various incentives such as business attraction initiatives and economic development strategies, tailored to the specific challenges and context.

TABLE 9.3 MONASH STRUCTURE PLAN EMPLOYMENT FLOORSPACE DELIVERY CONSIDERATIONS

	EXAMPLES OF RECENT DEVELOPMENT IN THE STRUCTURE PLAN AREA	HOW WILL PIPELINE DEVELOPMENT CONTRIBUTE? [1] (GFA)	WILL FUTURE GROWTH BE DELIVERED BY THE MARKET WITH LIMITED INTERVENTION?	
Office	A five-storey office building totalling 10,000 sq.m of A-Grade office floorspace was added to the Ferntree Business Park in 2022.	**A small proportion.** Victoria Health Innovation and Heart Labs is a pipeline, health-oriented office development that will house business development groups and strategic commercial partners that will look to benefit from adjacencies to the new Victorian Heart Hospital and multiple high-tech industrial institutions.		Should a high-quality, high-amenity town centre be delivered within the core of the Monash Structure Plan, the market is likely to follow with office space. This will also support office investment in the Ferntree Gully precinct particularly in areas close to the SRL East Station. Office space in the Blackburn Road Industrial Area is likely to follow large institutional developments. Areas closer to Henderson Road and Nantilla Road are likely to require further amenity improvements to attract a greater mix of office development.
Health	The Victorian Heart Hospital was completed in 2023 and added 850 jobs across approximately 54,000 sq.m of health floorspace.	**Almost 80% has already been delivered since 2021.** The Victorian Heart Hospital completed in 2023 delivered just over 54,000 sq.m of floorspace.		**Highly likely.** The Victorian Heart Hospital has already produced a large proportion of future health floorspace demand. With this as an anchor there should be sufficient demand for specialist space that wants to locate nearby. The balance of health floorspace demand should be filled by services targeting growth in resident and worker population such as medical centres and allied health services. Further growth could be possible.
Education	The Monash Chancellery Building was completed in 2019 and added around 10,000 sq.m of administrative space for staff and executives of Monash University.	**Nil.** No major education development proposals identified.		**Unlikely.** Delivery of the education floorspace estimate largely relies on the intentions and strategies of Monash University. While there is considerable growth potential in the tertiary sector, it will ultimately be the responsibility of the University to determine how and where it accommodates this expansion.
Retail	Limited change.	**Nil.** No major retail development proposals identified.		**Highly Likely.** The growth in retail floorspace is likely to meet demand from the growing population and workforce. Should the opportunity be created, the private sector is expected to deliver a moderately-sized town centre central to the area, with other retail space spread across the area in existing commercial nodes.
Entertainment & recreation	Limited change.	**Nil.** No major entertainment and recreation development proposal identified.		**Highly Likely.** Entertainment and recreation concepts (i.e. cinemas, mini golf, bars etc) are increasingly popular within retail precincts. A new retail offer in Monash is likely to include a entertainment and retail component, particularly given the size of the adjacent student population at Monash University and the expectations for a rapidly increasing worker and resident population.
Accommodation	Limited change.	**Nil.** No major accommodation development proposal identified.		**Highly likely.** A new town centre, increased employment and an adjacent University are all likely to stimulate demand several large hotels hotel in the Structure Plan Area. Should the broader vision for Monash be achieved, and the opportunity for development of scale around the future station be created, the market should deliver accommodation facilities in response.

	EXAMPLES OF RECENT DEVELOPMENT IN THE STRUCTURE PLAN AREA	HOW WILL PIPELINE DEVELOPMENT CONTRIBUTE? [1] (GFA)	WILL FUTURE GROWTH BE DELIVERED BY THE MARKET WITH LIMITED INTERVENTION?	
Public use	Limited change.	**Nil.** No major public use development proposals identified.		**Highly likely.** Relatively minor increase projected in line with population and employment growth.
Industrial	Limited change.	**Around 15% of future demand.** The updates to the Australian Synchrotron (~2000- sq.m), the Moderna MRNA Vaccine Manufacturing Facility (16,500 sq.m), CSIRO Hydrogen Refuelling Station (Unknown) and two pipeline warehousing developments should contribute around 20,000 sq.m or 15% of future demand.		**Likely.** There is significant growth expected in the Monash Structure Plan for industrial floorspace. The desired typology of this growth is for research and higher tech industrial tenants to be aligned with the designation as a NEIC. The pipeline indicates that the market is readily supplying this type of floorspace already, but given the expectation for a loss of lower density floorspace such as auto repairs and light industry the actual development need is higher than the net change of 156,000 sq.m out to 2041. Some intervention might be required to continue to attract ensure high tech and advanced manufacturing industrial activity to the Structure Plan Area.

Source: AJM JV. Notes: 1. Refer to Section 3.7 for further details on pipeline development.

9.5 Location and form of future employment floorspace

Based on the general land use and industry locational preferences, and respective built-form typologies identified previously in Section 5 and detailed further in Appendix C. The table below summarises the location and built-form preferences for the land uses assessed within the Structure Plan Area.

TABLE 9.4 MONASH STRUCTURE PLAN EMPLOYMENT FLOORSPACE LOCATION AND FORM

	LOCATIONAL PREFERENCES	BUILT FORM TYPOLOGIES	EXAMPLE TYPOLOGIES *Refer to Appendix C- Figures C1 to C5*
Office	• Provision within a new Monash town centre directly around the new SRL East Station. • Within the Ferntree Gully Industrial Area through regeneration of what is currently predominantly low density light industrial and automotive repairs. • Within the Blackburn Road Industrial Area servicing the research and development institutions. • On the Monash University site.	• Mid to higher density office and mixed use buildings directly around the SRL East Station. • Integrated education and office buildings around the University and intertwined with the higher tech industrial uses. • Some business park or campus style in the Industrial Areas.	 *Mixed use offices at Walk Up Village Collingwood, office in education buildings at Melbourne Connect and modern business park development in Macquarie Park.*
Health	• Agglomerating with the Victorian Heart Hospital. • Medical consulting rooms within office development. • Medical centre and allied health space within retail strips and centre.	• Specialist hospital or other medical service structures attaching to Heart Hospital. • Mixed tenure consulting rooms. • Smaller medical consulting suites in the town centre core.	 *Victorian Heart Hospital recently opened in Structure Plan Area, small mixed tenure consulting rooms in Burwood and smaller consulting suits in retail based environments.*
Education	• Tertiary education primarily on Monash University site. • Tertiary education could also be located as part of mixed use buildings in town centre core or research related within the Industrial Areas. • School education to intensify on existing school sites both in and around the Structure Plan Area.	• Tertiary education buildings, with potential for integrated office, research and incubator space. • Integrated campus with a mix of education, office, research, incubator, student amenities and private sector spaces. • High density schools.	 *Integrated campuses within a town centre at 1PSq, Parramatta (or Melbourne Connect above), University of Wollongong Innovation campus 'business park' and higher density schools. Recent Deakin University Law School also an example of a modern, flexible tertiary education space- see Section 3.6.*

	LOCATIONAL PREFERENCES	BUILT FORM TYPOLOGIES	EXAMPLE TYPOLOGIES *Refer to Appendix C- Figures C1 to C5*
Accommodation	• Primarily, new Monash town centre directly around the new SRL East Station. • Potentially near the Monash University site within walking distance of the SRL East Station.	• Accommodation within a mixed-use building, i.e. education, health, office, or retail. • Medium rise hotels or serviced apartments.	  *Nestuo Curtin Hotel Perth, accommodation integrated with education uses on a University, accommodation mixed with other uses in town centre setting as shown in the Veriu Collingwood*
Retail	• Primarily, new Monash town centre directly around the new SRL East Station. • Some retail on the Monash University site within walking distance of the SRL East Station. • Large format retail along Dandenong Road. • Smaller, convenient facilities through employment areas and proximate to residential pockets.	• Fine grain shops around the station anchored by a supermarket, as per the recommendations of the SRL East Structure Plan - Retail Assessment – Monash. • Fine grain retail in some limited existing commercial areas. • Showrooms along Dandenong Road.	  *Fine grain retail streetscape at Central Market, Adelaide and street/centre based retail in Highett Activity Centre*
Entertainment & rec.	• Primarily, new Monash town centre directly around the new SRL East Station. • Some entertainment could go on the Deakin University site within walking distance of the SRL East Station.	• Theatre or other large box commercial entertainment within a centre context. • Bars and dining as part of retail ground floor typologies either within mixed-use development or as part of a town centre street environment.	  *Social Quarter Chadstone, for Monash this concept would be within a town centre rather than shopping centre & Bridge Road Brewery, Brunswick East*
Public use	• Primarily, new Monash town centre directly around the new SRL East Station. • Other locations across Structure Plan area depending on the specific needs of the public use activity.	• Range of buildings depending on the specific uses. • Either integrated into mixed use building or a community focused precinct combining a range of public focused uses.	  *Narrm Ngarru Library, Melbourne and Clayton Library with community facilities from the Clayton Economic Profile*

	LOCATIONAL PREFERENCES	BUILT FORM TYPOLOGIES	EXAMPLE TYPOLOGIES *Refer to Appendix C- Figures C1 to C5*
Industrial	• Ferntree Gully Precinct, outside the new Monash town centre • Henderson Road area of Blackburn Road Industrial Area	• Advanced manufacturing spaces. • High tech industrial buildings. • Higher density office/industrial spaces.	 *Interiors of the Boeing Manufacturing Facility in Seattle, Boston Dynamics headquarters, and advanced manufacturing at Moderna mRNA Vaccine Manufacturing Facility, Clayton.*

Source: AJM JV

9.6 Implications for Monash Structure Plan

The employment floorspace estimates presented in this section need to be considered in preparing the Structure Plan:

- According to floorspace modelling through to 2041, Monash is projected to need an additional 1.05 million sq.m of floorspace beyond what is currently developed. This increase will primarily come from expanding education, industrial, and office spaces in the Structure Plan Area, which collectively account for 85 percent of the forecast employment floorspace growth.
- This new development should be dense around the new station, supported by a new Monash town centre, dropping down to relatively less dense (but still significant) built form on the Monash University campus and through existing Industrial Areas near the at Ferntree Gully Road and Blackburn Road.
- Delivering the forecast education floorspace is beyond the role of structure planning, as it will be heavily reliant on the intentions and activity of Monash University. Continued stakeholder engagement to ensure alignment with the University's long-term growth plans will be required, noting they also have a key role to play in creating the ecosystem to allow growth in surrounding commerce and industry.
- Industrial floorspace growth will need to be encouraged and managed to ensure development occurs in the right locations, more likely towards the edges of the Structure Plan Area east of Blackburn Road (with some regeneration in the Ferntree Gully Road Industrial Area). With some existing low-intensity industrial use expected to relocate as land values increase around the station, support may be required to manage the change and support site amalgamation. At the same time, greater intensity of industrial built form will be required to be supported in remaining Industrial Areas if a significant net increase in floorspace is to be achieved. This could include integration of office and industrial forms, and multi-level industrial activity.
- Delivering a high-quality, high-amenity town centre in Monash around the SRL East Station will be important in supporting business activity and growing a substantial office hub to meet employment projections. This development is also likely to assist in transitioning some of the nearby low density industrial toward office-based uses. The inclusion of residential opportunities within the town centre can be supportive in this regard, supporting amenity and creating activity beyond business hours that makes for a more attractive work environment.
- Beyond Structure Plan, further activities may be required to achieve forecast floorspace growth. This includes engaging with the University and other institutions to foster partnerships and collaboration opportunities that can drive demand for office and other floorspace in the Structure Plan Area. The efforts to enhance the brand of Monash as leading-edge knowledge precinct need to continue in parallel with the Structure Plan development to attract key institutions and multi-national corporations.

Part D: Summary and Recommendations

Part D includes:

- **Section 10** summarises the findings of the assessment provided in the previous sections.
- **Section 11** makes recommendations for employment floorspace planning and development to consider when developing the Structure Plan.

10. Summary of findings

This section summarises the demand for floorspace in the Monash Structure Plan Area and the driving factors behind it. These provide the basis for the recommendations to inform the development of the Monash Structure Plan.

10.1 Employment policy expectations and goals

Victorian and local government priorities that should guide Monash's long-term employment role, and the distribution of employment growth and floorspace across the Structure Plan Area are:

- Increasing **employment opportunities** outside the Melbourne CBD is a key objective of the Victorian Government, expressed through various policy statements, including Plan Melbourne. Monash is central to achieving that vision as the largest employment cluster outside of the CBD, with significant growth potential. This is reinforced through the local policies of Monash Council, and other independent business and institutional partnership arrangements.
- **Located within a NEIC and designated health and education precinct**, the Monash Structure Plan will play a crucial role in stimulating economic activity for the region over the coming decades, serving as one of the largest employment hubs outside the CBD. Key to this is ensuring that the NEIC has the necessary supporting infrastructure, such as public transport and capacity for future jobs and housing, to enable long-term growth.
- Local and regional policy documents consistently recognise **Monash's significant role in delivering jobs to the surrounding region**. Key to this is growth in employment and innovation in the health, education and research precinct. The Monash Technology Precinct, as defined by the Monash Planning Scheme and largely within the Structure Plan Area, is identified as the primary strategic location for high level technology research and development initiatives

10.2 Opportunity for suburban employment growth

Growing suburban employment hubs outside the CBD is a significant departure from historical trends and current norms. This is particularly so for the professional services jobs, which have historically concentrated in and around the Melbourne CBD. Learning from Sydney's experience, a range of factors need to be in place to grow professional services in suburban employment hubs. The Sydney experience also shows the mix of suburban employment varies depending on the attributes of the local area.

Based on an assessment of suburban office hub attributes, Monash has significant potential to become a large office hub. It possesses many of the necessary attributes, and the completion of SRL East and delivery of amenity, for example through a new town centre, will drive further office development. The new town centre could support a cluster of office spaces in a high-amenity environment with excellent public transport. Generous floorplates in the town centre could attract development interest, and then larger businesses and some corporates to occupy them.

10.3 Future economic role of Monash Structure Plan Area

Monash's economy has experienced strong growth over the past decade, primarily driven by significant worker growth in the education sector. This sector remains a clear specialisation for Monash and is likely to continue defining its future growth. Professional services have also seen strong growth particularly in professional, scientific and technical services. There has been modest growth in population services, primarily through an increase in construction workers within Industrial Areas and new office developments across the Structure Plan Area.

Looking forward, Monash will continue to be a leading education and research precinct, both in Australia and globally. Monash University is already enhancing the R&D capabilities of the Structure Plan Area and will remain a significant contributor to job growth, driving demand for various services and activities across multiple sectors. The development of a new mixed use Monash Town Centre and the SRL Station have the potential to create the required shift to support growth of the knowledge-based industries and higher density office development. Future planning of the Town Centre should focus on delivering exceptional worker amenity and creating a vibrant centre to support both growth in worker, students and residents. Industrial areas are likely also transition towards higher value industrial and offices uses and in some Industrial Areas, Monash will evolve its specialisation in R&D and advanced manufacturing.

The ongoing development and transformation of Monash's two major Industrial Areas are important to achieving the objectives of the Structure Plan Area. The Ferntree Gully Road Industrial Area is expected to progressively shift towards higher value activities, in line with the NEIC vision, such as technology, advanced manufacturing, and R&D. These will be accommodated in a range of office and industrial buildings, with higher employment density uses located towards a new Monash Town Centre. Areas further away from the core may accommodate a mix of larger scale campus style offices or modern industrial uses.

The Blackburn Road Industrial Area will continue to be shaped by its large institutional uses, such as the Australian Synchrotron and Moderna, with the surrounding areas fostering compatible infill development, particularly complementary office space. The areas extending towards Henderson Road/Nantilla Road will also continue to transition, leveraging the facilities recently established or under development along Wellington Road. Larger lots in this area could accommodate a wider variety of future high-value technology, R&D, and advanced manufacturing uses, along with office space. This area will likely accommodate more of the future “industrial” land uses, with the Ferntree Gully Road area transitioning more to a mixed employment environment.

A review of the Monash local economy, its competitive positioning, and the outlook for key sectors undertaken for this assessment has identified Monash’s role as it evolves towards a knowledge and innovation precinct of global impact.

This is underpinned by the future role and opportunity for each of the industry sectors in the Monash Structure Plan Area:

- **Education:** Defined by Monash University, Monash will continue to be a leading education and research precinct, both in Australia and globally. Monash University is already enhancing the R&D capabilities of the Structure Plan Area and will remain a significant contributor to job growth, driving demand for various services and activities across multiple sectors.
- **Other Population Services:** Increasing amenities and population-focused services will be essential to support the future growth of residents, workers, and students in the Monash Structure Plan Area.
- **Professional Services:** With the development of the new Station and town centre, professional services can play an increasingly significant role in the Structure Plan Area. These services have the potential to continue expansion by leveraging the presence of the University and other large institutions in the area.
- **Industrial:** The industrial sector in the Structure Plan Area is likely to evolve, moving away from traditional manufacturing and wholesale trade towards specialised industrial activities that leverage the R&D focus of the Structure Plan Area. Industrial areas may also transition to more mixed uses, offering a variety of spaces, including office areas, to support a growing workforce.
- **Health:** The health sector is expected to continue playing a minor role in the Monash Structure Plan Area. The recent addition of the Victorian Heart

Hospital will be reflected in employment projections and allow for modest growth. The primary health function will remain in the southern half of the NEIC, within the Clayton Structure Plan Area, although the Monash Structure Plan Area can play a complementary support role. Population growth will create some demand for local health services in the future town centre.

10.4 Employment forecasts to 2041

Figure 10.1 shows the forecast employment growth in the Monash Structure Plan Area to 2041, derived from the shows the forecast growth for employment in the Box Hill Structure Plan Area to 2041, derived from the derived from the forecasts in the CityPlan (published in the SRL BIC). It shows substantial forecast growth, with an additional 29,100 workers in the Structure Plan Area forecast by 2041 relative to 2021.

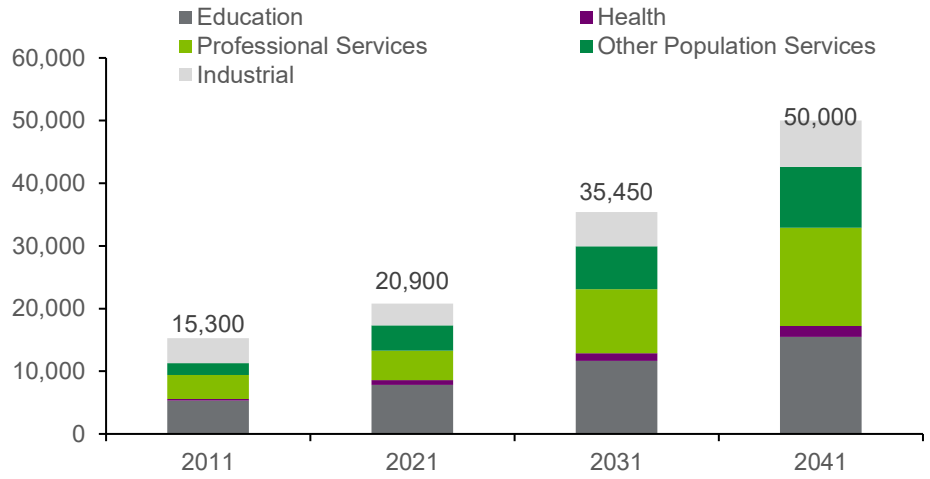


FIGURE 10.1 HISTORICAL AND FORECAST EMPLOYMENT IN THE MONASH STRUCTURE PLAN AREA, 2011–2041

Source: Derived from CityPlan (published in SRL BIC); ABS

Overall, the total employment projections for the Structure Plan Area are considered an accurate estimate that is an appropriate base to plan for through to 2041. Therefore, Structure Planning should plan for the total additional projected floorspace through to 2041.

At an industry level, forecasts indicate reasonable growth expectations for the health sector, reflecting the modest local role it will continue to play. Similarly, forecasts for other population services are reasonable and support the establishment of a town centre at the new Monash SRL East Station. Planning should consider the projected demand for floorspace, but also consider the detailed recommendations of the *SRL East Retail Needs Assessment – Monash*.

Forecasts project much higher employment growth than has been achieved in the past for education, professional services and the industrial sector. These projections may be achieved if there is alignment with the long-term growth plans of key stakeholders, particularly Monash University. Structure planning should seek to accommodate the modelled floorspace demand for professional services and industrial to encourage development and delivery of high-value employment. However, it should be recognised that growth in these areas would require a significant shift from past growth trends that may not match market demand. The delivery of a new station will support increased growth, but it is not the only driver of the significant employment growth projected.

10.5 Total employment floorspace demand

The floorspace modelling takes the 2041 employment forecast by sector and converts these into a floorspace estimate across a range of employment uses. The modelling uses workspace ratios (WSR) developed specifically for the Monash Structure Plan Area, taking account the existing density of workers and future workplace trends.

The modelling indicates the Monash Structure Plan Area will need to accommodate an additional 1.05 million sq.m of floorspace above what is currently provided. This will be less than the total amount of new development that will occur as this floorspace is net of space removal.

Table 10.1 shows current floorspace according to use in the Structure Plan Area, and the additional forecast floorspace required by 2041.

TABLE 10.1 MONASH STRUCTURE PLAN AREA, EMPLOYMENT FLOORSPACE REQUIREMENTS

LAND USE	FLOORSPACE 2021, (GBA)	FLOORSPACE 2041, (GBA)	ADDITIONAL FLOORSPACE 2021-2041 (GBA)
Industrial	531,200	687,400	156,200
Education	525,900	853,100	327,200
Office	318,300	730,000	411,700
Health	3,700	74,300	70,600
Entertainment / Recreation	45,300	67,100	21,800
Retail	41,600	56,700	15,100
Accommodation	32,400	71,400	39,000
Public Use	14,500	22,800	8,300
Total	**1,512,900**	**2,562,800**	**1,049,900**

Note: Retail floorspace figure in this table is the mid-point of the GBA range outlined in the Retail Needs Report.

Source: AJM JV

10.6 Potential for employment floorspace to be delivered

This economic assessment reviewed the potential for the market to deliver the employment floorspace demand estimated for the Monash Structure Plan Area. This is informed by assessing historical growth and development, as well as the current development pipeline. This indicates if there is evidence of existing market appetite for development of the scale required to meet employment and floorspace projections. It also informs consideration of whether further actions to support the delivery of employment floorspace in the Structure Plan Area will be necessary. Table 10.2 summarises the results of the review.

TABLE 10.2 EMPLOYMENT FLOORSPACE DELIVERY POTENTIAL

 **High potential to be delivered by market**	• **Health:** The Victorian Heart Hospital has already produced a large proportion of future health floorspace demand. With this as an anchor there should be sufficient demand for specialist space that wants to locate nearby. The balance of health floorspace demand should be filled by services targeting growth in resident and worker population such as medical centres and allied health services. • **Accommodation:** A new town centre, increased employment and an adjacent University are all likely to stimulate demand for an additional hotel in the Structure Plan Area. • **Entertainment and recreation:** Entertainment and recreation concepts are increasingly popular within retail precincts. A new retail offer in Monash is likely to include a entertainment and retail component, particularly given the size of the adjacent student population at Monash University and the expectations for a rapidly increasing worker and resident population. • **Public use:** Small increase in public use floorspace will likely be achieved with future community infrastructure planning.
 **Moderate potential to be delivered by market**	• **Industrial:** There is significant growth expected in the Monash Structure Plan for industrial floorspace. The desired typology of this growth is for research and higher tech industrial tenants to be aligned with the designation as a National Employment and Innovation Cluster. The pipeline indicates that the market is readily supplying this type of floorspace already, but given the expectation for a loss of lower density floorspace such as auto repairs and light industry, the actual development need is higher than the net change of 156,000 sq.m out to 2041. Some intervention might be required to ensure high tech development occurs here rather than elsewhere in the city or even country. • **Office:** Should a high-quality, high-amenity town centre be delivered within the core of the Monash Structure Plan, the market is likely to follow with office space. This will also support office investment in the Ferntree Gully precinct particularly in areas close to the SRL East Station. Office space in the Blackburn Road Industrial Area is likely to follow large institutional developments. Areas closer to Henderson Road and Nantilla Road are likely to require further amenity improvements to attract a greater mix of office development.
 **Low potential to be delivered by market without intervention**	• **Education:** Delivery of education floorspace estimate largely relies on the intentions and strategies of Monash University. While there is considerable growth potential in the tertiary sector, it will ultimately be the responsibility of the University to determine how and where it accommodates this expansion.

11. Recommendations and opportunities

This section makes recommendations to ensure the right amount and type of employment floorspace is delivered in the right locations in the Structure Plan Area.

For each category of employment floorspace, the amount of floorspace required is recommended, along with its optimal spatial distribution and appropriate building typologies. Additional actions considered necessary to achieve the economic vision for the Monash Structure Plan Area are recommended.

These recommendations are summarised with the locations shown in Figure 11.1 at the end of this section. The numbers on the figure refer to the numbers of the recommendations below.

11.1 Recommendations for structure planning

11.1.1 OFFICE FLOORSPACE

Recommendation 1: Plan for an increase of over 400,000 sq.m GBA office floorspace across the Monash Structure Plan area, primarily focused around the new station.

The area around the new station, envisioned as a new Monash Town Centre, has the potential to be an important hub of office-based activity which leverages the research, education and scientific activity across the remainder of the precinct. As discussed in Section 4.3, Monash will need to create a high worker amenity environment, and potentially use policy support and investment attraction strategies to bring offices to Monash, particularly in the short to mid-term. These actions are explored further in Section 11.2.

To support the establishment of an office cluster at the Monash Town Centre, structure planning should accommodate most of the required office floorspace in and around the Town Centre. Offices should be prioritised in locations with excellent access to the SRL Station and complemented by a range of worker amenities including food and beverage (F&B) and retail. This will ensure the area is highly desirable for both workers and businesses.

Offices in the Monash Town Centre should be medium to high density towers, built to A-Grade minimum standards to appeal to the potential corporate tenants. Future office development may be in stand alone or in mixed use buildings.

Sites which can accommodate larger office footprints and where appropriate, modern campus styled buildings, will be important in Monash and help distinguish itself from other office hubs along the SRL East corridor. Therefore, structure planning should ensure a range of larger office sites are located with excellent proximity to the SRL East Station.

Recommendation 2: Provide for a diverse range of office uses in commercial areas surrounding a new Monash Town Centre, including larger campus style and mixed-use office spaces

The area outside the Monash Town Centre, but in the Structure Plan area north of Normandy Road should to continue to be used for large format activities such as research, manufacturing and technology related. Offices are should be complementary to these core functions and therefore be included in mixed use employment buildings.

Structure planning should also support office floorspace in modern campus style or office buildings. Supporting amalgamation of small existing lots will be crucial for achieving increased office growth in this location.

Recommendation 3: Support complementary office floorspace the in Blackburn Road Industrial Area and across Monash University

Some office space should also be considered to infill sites around the Blackburn Road Industrial Area. Whilst this area will continue to be the focus for large knowledge and innovation anchors and modern industrial uses, larger-scale office development (potentially campus style) should be supported, subject to managing interfaces with the operations of the Australia Synchrotron. Overall, the separation of the Blackburn Road Industrial Area from the future SRL Station will naturally support a lower-density built form relative to the new Monash Town Centre, although the opportunity still exists to increase density substantially if supported by other public transport connections.

11.1.2 HEALTH FLOORSPACE

Recommendation 4: Focus future health floorspace towards the Monash Town Centre and around the Heart Hospital

Based on the modelling, the Structure Plan area will need an additional 70,600 sq.m GBA of additional health floorspace to meet long term needs, although 54,500 sq.m of this has already been delivered at the Victorian Heart Hospital. A share of the future growth should continue to be located close to, or integrated with, the Victorian Heart Hospital. The balance of new health space is likely to be consulting rooms to support local workers, residents and students, located primarily within a new Monash Town Centre.

11.1.3 EDUCATION FLOORSPACE

Recommendation 5: Focus future education floorspace on Monash University and within the Monash Town Centre

Future tertiary education floorspace should continue to be located at the Monash University's Clayton Campus. Where possible, encourage future education floorspace at the north of the campus, towards the future SRL East Station to further activate this area and improve linkages to the main campus building located centrally on the University site, although ultimately this is a decision for Monash University.

Future education floorspace should also consider opportunities to integrate private sector office and R&D spaces. Mixed education and private sector buildings should locate towards the new Monash Town Centre to ensure workers have access to amenities and the SRL East station.

Some education floorspace could also be located within the Monash Town Centre, ideally in a medium to high rise mixed-use buildings. This could provide opportunity for a range of education providers to locate in Monash.

Overall, the modelling suggests around 327,000 sq.m of additional education floorspace will be needed to 2041, but this will be dependent on Monash University's long-term plans for growth on their site.

Recommendation 6: Locate a small share of future school education floorspace on the existing school site

A small share of the education floorspace estimate is likely to be required for schools.

The existing primary school within the Structure Plan Area will likely support a small floorspace increase.

Future school floorspace will be primarily determined by the Department of Education and Training and align with population growth. Long term school planning, which is beyond the scope of this assessment, should consider the need for additional schools in the region.

11.1.4 RETAIL AND ENTERTAINMENT FLOORSPACE

Recommendation 7: As per the recommendations of the Monash Retail Needs report, plan for an additional 19,000- 22,000 sq.m Gross Building Area of retail and food and beverage (F&B) space in the Structure Plan Area

Monash requires a new town centre to provide services and amenity for all users of the Structure Plan Area. As part of this amenity, the retail and F&B offer should be expanded to support the growth in workers, students and residents. Our modelling suggests that between 19,000-22,000 sq.m GBA of additional retail and F&B uses will be required in the Structure Plan Area.

As detailed in the Monash Retail Needs report, retail uses should be consolidated in the new Monash Town Centre, close to the train station.

Some retail uses should be supported across the employment and university areas to provide improved amenity in a convenient location. Existing commercial nodes, including M-City and some smaller local convenience centres, can be built upon slightly, without detracting from the potential offer in the town centre.

There may also be some retail integrated within mixed use developments along Princes Highway, including larger format showroom spaces.

Recommendation 8: Support entertainment uses in the Monash Town Centre

A new Monash Town Centre should also be complemented by a range of entertainment uses, such as cinemas, pubs, bars, theatres, and leisure (subject to capacity, noting cinemas already exist at M-City for example). These will cater to students, workers and residents and help contribute a sense of liveliness to a new town centre.

Based on the modelling, structure planning should include around 21,800 sq.m of entertainment uses across the Structure Plan. The location should be defined by the specific attributes of the use, with most entertainment and recreation uses located close to retail activity. Broader community-focused entertainment use needs (i.e. swimming pools, sporting facilities etc) should be informed by the recommendations of the Monash Community Infrastructure Report.

11.1.5 INDUSTRIAL FLOORSPACE

Recommendation 9: Support transition of Ferntree Gully Industrial Area to high value and higher density employment uses

Consistent with the objectives of the Monash NEIC and its proximity to the new Monash Town Centre, the Ferntree Gully Industrial Area should transition towards a higher density employment precinct. The area is suitable for a wide range of higher density employment typologies including modern business parks, campus style office and modern industrial uses. Some office towers could be supported in areas closer to the new station. Enhancing the overall amenity, accessibility and supporting lot amalgamation will be critical for achieving this outcome.

Whilst primarily transitioning towards office uses and the like, this area could also accommodate a share of the additional 156,000 sq.m of industrial floorspace forecast for the Monash Structure Plan Area. This is likely to be mixed with offices uses and larger industrial spaces located towards the perimeter of the Industrial Area.

Recommendation 10: Blackburn Road Industrial Area to continue to provide for a range of anchor R&D and high value manufacturing activities

The existing specialised advanced manufacturing and R&D institutions will continue to shape the future growth of the Blackburn Road Industrial Area. Compared to the Ferntree Gully Road Precinct, future high-value industrial activities in the Blackburn Road Industrial Area are anticipated to be lower in density, given the larger lots and distance from the new Monash Town Centre and station.

There is opportunity to leverage the large institutional facilities and support complementary in-fill development. This could be a mix of offices and industrial spaces which align with the core R&D and advanced manufacturing focus of this area.

Henderson Road and Nantilla Road should be transitioned, building on the facilities recently developed/developing to the west of that area, such as the Australian Synchrotron and the Moderna mRNA Vaccine Manufacturing Facility.

A larger share of the projected industrial floorspace is likely concentrated in this industrial area compared with Ferntree Gully Road.

11.1.6 OTHER EMPLOYMENT FLOORSPACE

Recommendation 11: Plan for an additional 39,000 sq.m of accommodation floorspace (approximately 450 – 650 rooms) close to the station or part of a new Town Centre

Accommodation will be a key component of a new Monash Town Centre, catering business travellers and also visitors associated with Monash University.

Based on the modelling, plan for approximately 39,000 sq.m of accommodation floorspace, mainly situated in and around the Monash Town Centre near amenities, public transport, offices, and retail.

Recommendation 12: Support public use floorspace close to the new Monash Town Centre

Public use floorspace will support the growth of non-office based public services. Examples include public libraries, courts, community centres, churches, non-office government buildings, policy, fire and ambulance facilities. Future planning of other community uses will be guided by the Monash Community Infrastructure Report or relevant public organisations. Where possible they should be located centrally around a new Monash Town Centre. Modelling suggests that the Structure Plan will need to deliver a further 8300 sq.m of public use floorspace through to 2041.

11.1.7 OTHER RECOMMENDATIONS TO SUPPORT EMPLOYMENT GROWTH

Recommendation 13: Opportunity for residential in the new Monash Town Centre

Consider including residential development within the new Monash Town Centre. This could help create a mixed use, vibrant town centre. It could also stimulate additional demand for services and extend activity beyond business hours, crafting an engaging, multi-purpose Town Centre.

Should the Town Centre accommodate say around half of the projected 7900 additional residents in the Structure Plan Area, that could equate to roughly 4000 residents. This would be sufficient to support an active Town Centre, including retail and other services, given the additional activity generated by workers and other residents in existing residential areas nearby.

Recommendation 14: Promote land amalgamation around the new Monash Town Centre

Consider measures to encourage land amalgamation around the new Monash Town Centre given the small lots across large areas close to the new station. Such measures could expediate development of a high-density, high-value employment precinct. Without significant land amalgamation, the Town Centre's transformation might be prolonged, with smaller local businesses continuing to occupy core land in the interim.

Recommendation 15: Provide high worker amenity to attract businesses and workers

Ensure the new Monash Town Centre and surrounding Ferntree Gully and Blackburn Road industrial areas provide a high level of worker amenity to help attract a range of businesses. This should include a high-quality public realm, quality building design, broad mix of amenities, including food and beverage (F&B) and access to public transport for future workers.

11.2 Other opportunities

Although potentially beyond the scope of the Structure Plan development and supporting Planning Scheme Amendments, other opportunities to support the necessary employment development in Monash include the following:

Opportunity 1: Quality office and employment buildings

Ensure high quality office and employment buildings to attract tenants. Any future design guidelines should support delivery of office buildings including mixed use office buildings, flexible and generous floorplates, high levels of external and internal amenity, technology infrastructure, and ability to achieve a high level of sustainability.

Opportunity 2: Clearly define role and focus of each employment precinct

Realising Monash's ambitious employment vision will require clear articulation of the role and priorities of key employment precincts. These are the Monash Town Centre, the Ferntree Gully Industrial Area, Blackburn Road Industrial Area and Monash University. Each precinct should articulate a distinct focus while also exploring avenues to optimise potential synergies among them. Moreover, these precincts need a unified strategy for effective collaboration, thereby fully realising Monash's potential as one of Melbourne's leading NEICs.

Based on the analysis presented in this the Economic Profile, the potential economic roles for these precincts are as follows:

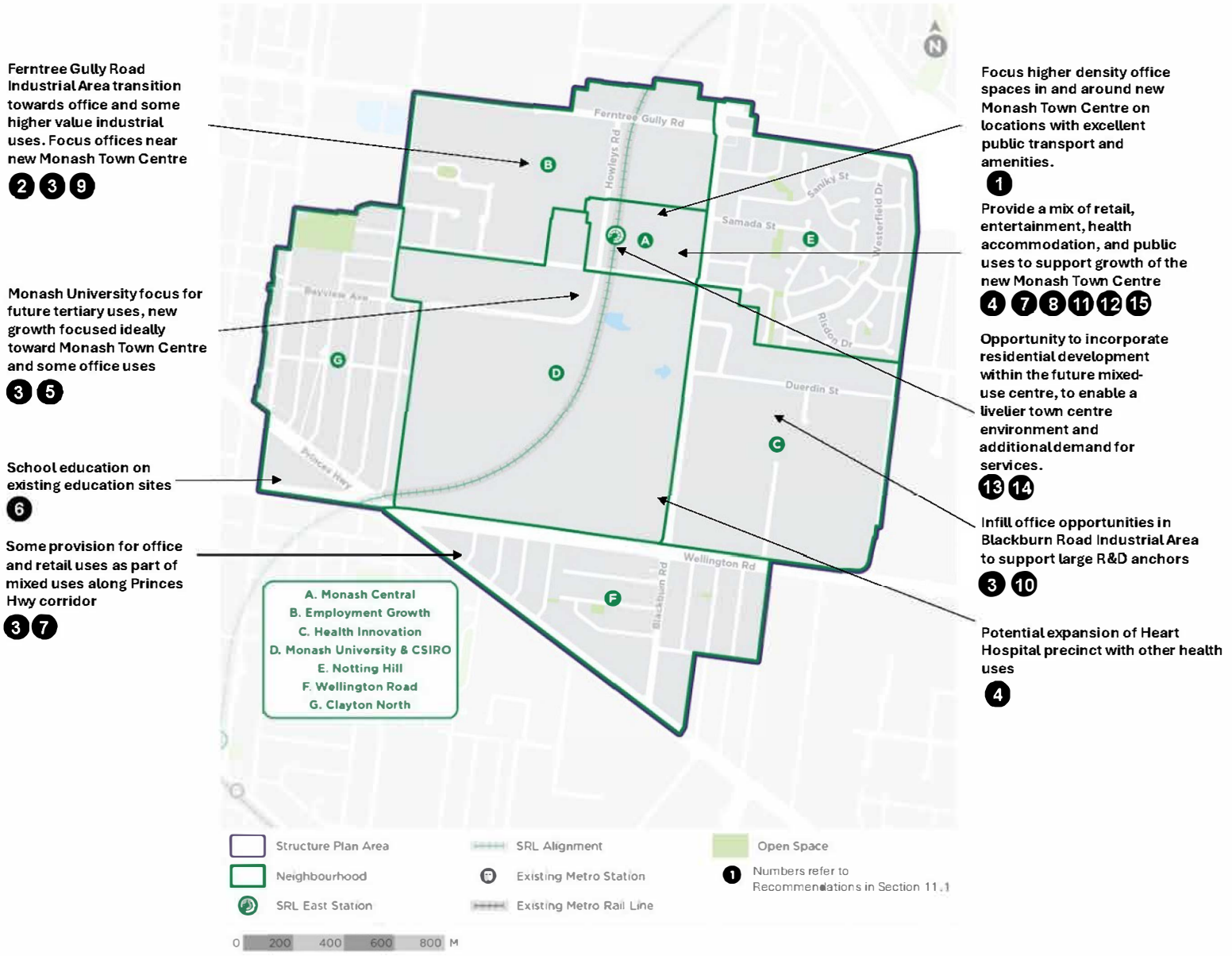
- **Monash Town Centre**, a dynamic mixed-use hub, will offer high-quality amenities for workers and visitors. As a central hub for technology, R&D, and advanced manufacturing within the broader NEIC, it will appeal to innovation-driven businesses, from startups to corporates, including those supporting the wider NEIC. It's also suitable for an expanded tertiary education offer.
- **Ferntree Gully Industrial Area** offers businesses town centre amenities and ample space for large campus-style or mixed employment buildings. It's particularly suitable for sectors involved in technology, research, and innovation.
- **Ferntree Gully Industrial Area** provides businesses with access to the amenities of the Monash Town Centre but also space for larger style campus or mixed employment buildings. This space is suited of a wide range of sectors but those in technology, research and innovation activities.
- **The Blackburn Road Industrial Area** should continue to grow a business ecosystem centred on its specialised advanced manufacturing and R&D institutions. Areas to the east can provide space for new businesses in a blend of office, research, and industrial uses.

Opportunity 3: Partnerships and business attraction strategies

Consider partnerships and incentives to attract office-based technology and innovation businesses, to locate in the Structure Plan Area. This has been successfully done for other industrial and R&D businesses in the NEIC, for example Moderna and HeartLabs at the Victorian Health Innovation Centre. This collaborative model is anticipated to remain instrumental in attracting anchor institutions and businesses to the precinct, thereby facilitating the clustering of smaller enterprises.

Opportunity 4: Align with Monash University's long-term plans

Achieving the education floorspace and synergies between key institutions and business will require further understanding of Monash University's long-term plans for growth on its Clayton Campus.



LOCATION RECOMMENDATIONS FOR FUTURE EMPLOYMENT FLOORSPACE IN THE MONASH STRUCTURE PLAN AREA

Appendix A

Data sources, use and descriptions

Abbreviations, Data Sources and Definitions

ACRONYMS AND ABBREVIATIONS

ABS	Australian Bureau of Statistics
AJM JV	AJM Joint Venture
ANZSIC	Australian and New Zealand Standard Industrial Classification
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ATO	Australian Tax Office
BIC	KPMG's Business and Investment Case (BIC) for SRL East
CBD	Central Business District
CLUE	Census Land Use and Employment
DEECA	Department of Energy, Environment and Climate Action
DELWP	Department of Environment, Land, Water and Planning – Note that DELWP's functions were split into DEECA and DTP in January 2023
DJSIR	Department of Jobs, Skills, Industry and Regions
DTP	Department of Transport and Planning
DZ	Destination Zone
FES	Floorspace Employment Survey
GBA	Gross building area
GFA	Gross floor area
GLA	Gross leasable area
LGA	Local Government Area
LQ	Location Quotient
MAC	Metropolitan Activity Centre
MICLUP	Melbourne Industrial and Commercial Land Use Plan
NEIC	National Employment Innovation Cluster
OCCP	Occupation [ABS Census]
PSMA	PSMA Australia [Land Tenure Data]
SP	Structure Plan
SRL	Suburban Rail Loop
SRLA	Suburban Rail Loop Authority
SWOC	Strengths, Weaknesses, Opportunities, Challenges
TAFE	Technical and Further Education
VET	Vocational Education and Training
VIF	Victoria in Future
VITM	Victorian Integrated Transport Mode
WSR	Workspace ratio

DATA SOURCES AND GEOGRAPHIES

The following key data sources and key geographies were used in the analysis:

- **Census of Population and Housing 2006, 2011, 2016 and 2021**, Australian Bureau of Statistics (ABS)

  Census data is available for standard ABS geographies such as Destination Zones (DZs) and Local Government Areas (LGAs).

- Land use projections generated as part of the **Business and Investment Case (BIC) for SRL East**, 2021, KPMG (on behalf of the Victorian Government)

  - » Land use projections (including demographic, employment and enrolment estimates) included in the SRL BIC are derived from the CityPlan model.
  - » CityPlan is a strategic scale Land Use Transport Interaction (LUTI) model that is used to estimate the broad land use impacts of major transport and precinct initiatives. It was developed by KPMG on behalf of the Victorian Government Department of Transport and Planning (DTP).
  - » CityPlan's geographic scope is confined to Victoria, with a focus on metropolitan Melbourne and surrounding settlements. In this instance, CityPlan has been used to redistribute the base population and employment distribution based on the SRL transport and other related initiatives. These redistribution effects have been contained in the total Victorian population projects, with the majority of movements contained in metropolitan Melbourne.
  - » The CityPlan model uses a range of data. Some of the data is publicly available and some is internal to the Victorian Government.
  - » The version of CityPlan used for the SRL BIC was Version 1.1.1. Key inputs into CityPlan Version 1.1.1 include:

    - SALUP19 based on Department of Environment, Land, Water and Planning (DELWP) Projections 2018 (Unpublished)
    - ABS Census 2016
    - Victorian Planning Authority (VPA) potential development capacities
  - » Data is reported at the Travel Zone, SA2, SA3 and LGA level.
  - » For an introduction to CityPlan, in the context of the SRL, see the SRL Business and Investment Case available from: https://bigbuild.vic.gov.au/library/suburban-rail-loop/business-and-investment-case
- A **floorspace audit** was caried out to identify and categorise employment land in the Structure Plan Area. This process included review of a number of data sources (such as DEECA, PSMA and Space Syntax) to understand, for each building, the existing employment land use and estimate the amount of floorspace. This data set provided a baseline for future floorspace estimates and figures are in Gross Building Area (GBA).
- A further comprehensive **industrial land audit** was carried out to identify and categorise relevant industrial land uses within the boundaries of each Structure Plan. This process included a thorough examination of current occupants by analysing *Arealytics* data and other online datasets. Businesses were classified based on their industry, the nature of the business, and the typology of the space they occupied was determined.

DEFINITIONS

Industry classifications

The following Australian and New Zealand Standard Industrial Classification (ANZSIC) Divisions make up the combined industry classifications used in this analysis:

- **Professional Services:** 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
- **Health:** Health care and social assistance
- **Education:** Education and Training
- **Population-serving:** Construction; Retail Trade; Accommodation and Food Services, Arts and Recreation Services; Other services
- **Industrial:** Agriculture, Forestry and Fishing; Mining; Manufacturing; Electricity, Gas, Water and Waste; Wholesale Trade; Transport, Postal and Warehousing

When referring to industries in the report, it is almost always relating to these ANZSIC level 1 industries.

Occupation

The occupation classification used in Australian Bureau of Statistics (ABS) surveys is the Australian and New Zealand Standard Classification of Occupations (ANZSCO). ANZSCO is a skill-based classification of occupations which covers all jobs in the Australian and New Zealand workforce. Occupation information collected in surveys and the Census provides a description of a person's job, and refers to the kind of work undertaken by an employed person irrespective of the industry in which that job is held.

Occupational analysis has used ANZSCO level 4 occupations, which is the most granular occupation level that is also comparable with previous census periods. This level has been used as it is typically in conjunction with determining floorspace type, which requires a detailed understanding of the job description.

Methods of floor area measurement

- **Gross Building Area (GBA)** refers to the total floorspace of a building including stairs, hallways, plant etc.

  Note that the figures are Gross Building Area (GBA) as the floorspace audit was undertaken using external building information, no common spaces or otherwise unleasable spaces have been removed from the building extents.
- **Gross Floor Area (GFA)** is the total area of all floors in a building, measured from the exterior walls. It generally excludes stairs and plant area.
- **Gross Leasable Area (GLA)** focuses on the portion of space available for lease to tenants, typically excluding common areas and utility spaces.

Workspace ratio

Workspace ratio is the average floorspace (sq.m) per employee. In this report there are discussions using both workspace ratios for GFA and GLA. GLA is used when comparing with collected workspace ratio benchmarks from other cities in Australia. These benchmarks are provided at a GLA level. GFA workspace ratios are used to calculate the total amount of floorspace demanded in the selected area. GFA is more useful for this analysis as the structure planning process will need to be aware of the total employment floorspace, not just the leasable area.

Assumptions and limitations

MODELLED PERIOD

- The analysis presented in this report focuses on a single potential population outcome and evaluates the employment floorspace requirements necessary to achieve that specific outcome. The projected year for employment demand is 2041 as the emphasis for structure planning is 2041.

ASSUMPTIONS

There are several key assumptions associated with this analysis. They are:

- **Workspace ratios**. In order to determine an appropriate workspace ratio to apply to the future of the Structure Plan Area, a translation needed to occur between workspace ratio on a GBA basis, as determined by the floorspace audit undertaken, to a GLA based workspace ratio in order to compare with known benchmarks. This is variable based on the land use, as shown in appendix E. This assumption was made in conjunction with interrogation of the City of Melbourne CLUE dataset.
- **New and removed floorspace**: In projecting the future floorspace demand in the Structure Plan Area an assumption was required on the amount of floorspace that was new, the amount that was old and the amount that was removed. All of these spaces will have differing impacts to the workspace ratio across the Structure Plan Area. The average rate of removal per annum was derived from City of Melbourne CLUE data to assist with this.

LIMITATIONS

There are several key limitations associated with this analysis. They are:

- **Census data**. The 2021 Census was conducted at an unusual time with much of Australia's eastern seaboard subject to COVID-19 restrictions, prompting caution when interpreting certain results, especially regarding data on place of employment. Census data is also subject to random perturbation to protect the confidentiality of individuals. These adjustments result in small introduced random errors when analysing more finely classified data. Changes to data management and collection methods across Census periods can also impact the use of a few datasets especially when used at a small geographic level or over time.
- **Spatial misalignment:** Numerous situations arise where the geographic units of one type intersect with the boundaries of another type in inconsistent ways. For example, Travel Zones (used in BIC data) do not perfectly align with SA1s (the principal geography Census data is extracted from). AJM JV and SRLA have agreed on specific methods for apportioning geographic data. We note that apportioning can result in some inaccuracy in the allocation of data for the area sought to approximate.

  BIC projections: The projections are strategic and should be considered indicative. Since the projections were prepared, some material events have occurred impacting population and employment growth and to some extent, typical behaviours of households and businesses. These include: COVID-19; lower population growth; shift in user preference to working from home and updated to staging of competing and complementary projects. For full details on the assumptions and limitations of CityPlan and the provided land use outputs see Appendix C1: Demand Modelling Report from the SRL Business and Investment Case available from: https://bigbuild.vic.gov.au/library/suburban-rail-loop/business-and-investment-case

Appendix B

Structure Plan employment profile

TABLE B.1 WORKER CHARACTERISTICS, MONASH, 2021 CENSUS

	MONASH		GREATER MELBOURNE
	2011	2021	2021
Industry:			
Education and Training	5300	8000	224,400
Health Care and Social Assistance	300	800	337,200
Professional Services	3800	4600	666,500
Other Population Services	2000	4000	725,500
Industrial	4000	3500	423,200
Total	**15,300**	**20,900**	**2,376,700**
Full-Time / Part-Time			
Full-Time	11,300	14,400	1,441,600
Part-Time	3300	5500	781,600
Away from work	700	1000	153,500
Total	**15,300**	**20,900**	**2,376,700**
Gender:			
Male	9300	12,100	1,219,800
Female	6000	8800	1,156,900
Total	**15,300**	**20,900**	**2,376,700**
Age:			
15-24 years	1200	2200	319,400
25-39 years	6000	8000	897,900
40-54 years	5500	7100	736,200
55-64 years	2100	2900	326,000
65 years and over	400	500	97,400
Working Age (15-64 years)	**14,900**	**20,400**	**2,279,300**
Total	**15,300**	**20,900**	**2,376,700**
Education:			
Bachelor or Above	*Irregularities in Comparison*	12,300	1,057,200
Diploma or Above		2200	281,500
Certificate or Year 10 and above		5900	921,100
Year 9 and below		500	107,800
No educational attainment		0	9000
Total		**20,900**	**2,376,700**

	MONASH		GREATER MELBOURNE
	2011	2021	2021
Income:			
Negative income	0	0	2300
Nil income	100	100	11,000
$1-$149 ($1-$7799)	400	300	59,800
$150-$299 ($7800-$15,599)	300	500	68,300
$300-$399 ($15,600-$20,799)	400	500	71,500
$400-$499 ($20,800-$25,999)	1100	500	86,400
$500-$649 ($26,000-$33,799)	1400	1000	140,100
$650-$799 ($33,800-$41,599)	1700	1100	182,400
$800-$999 ($41,600-$51,999)	2300	1600	259,800
$1000-$1249 ($52,000-$64,999)	2100	2300	314,100
$1250-$1499 ($65,000-$77,999)	2900	2200	255,000
$1500-$1749 ($78,000-$90,999)	2500	2500	230,800
$1750-$1999 ($91,000-$103,999)	*Ranges Altered Between Census Periods*	2100	171,200
$2000-$2999 ($104,000-$155,999)		4200	310,700
$3000-$3499 ($156,000-$181,999)		900	76,000
$3500 or more ($182,000 or more)		1300	137,300
Average Income	**$72,432**	**$87,217**	**$76,198**
Total	**15,300**	**20,900**	**2,376,700**
Method to Work:			
Worked at home	*No Data*	8800	799,500
Private Vehicle		10,400	1,346,700
Active Transport		600	73,400
Other Public Transport		1000	147,100
Other Mode		100	10,100
Total		**20,900**	**2,376,700**
Occupation:			
Managers & Professionals	8400	11,800	1,007,200
White Collar	11,900	16,300	1,785,400
Blue Collar	3400	4600	591,300
Total	**15,300**	**20,900**	**2,376,700**

Source: ABS Census of Population and Housing, 2011, 2021

TABLE B.2 INDUSTRY PROFILE, MONASH, 2011 & 2021

	2011	2021	PROPORTION 2021	G.MELB PROPORTION	LOCATION QUOTIENT	2011-21 ANNUAL GROWTH (NO.)	GROWTH RANK
Education and Training	5300	8000	38%	11%	3.5	247	1
Health Care and Social Assistance	300	800	4%	16%	0.2	52	5
Administrative and Support Services	460	690	3%	3%	1.1	23	7
Financial and Insurance Services	150	230	1%	3%	0.4	8	9.5
Information Media and Telecommunications	890	590	3%	1%	2.3	-30	18
Public Administration and Safety	200	420	2%	4%	0.5	22	8
Professional, Scientific and Technical Services	2040	2630	13%	8%	1.5	59	3.5
Rental, Hiring and Real Estate Services	80	90	0%	2%	0.2	1	15
Professional Services	3800	4600	22%	21%	1.1	83	
Accommodation and Food Services	300	630	3%	6%	0.5	33	6
Arts and Recreation Services	90	90	0%	1%	0.3	0	16
Construction	880	2000	10%	9%	1.1	112	2
Retail Trade	390	980	5%	12%	0.4	59	3.5
Other Services	260	340	2%	4%	0.4	8	9.5
Other Population Services	2000	4000	19%	32%	0.6	212	
Agriculture, Forestry and Fishing	0	40	0%	0%	0.7	4	13
Electricity, Gas, Water and Waste Services	110	150	1%	1%	0.9	4	13
Manufacturing	1880	1310	6%	10%	0.6	-57	19
Mining	10	50	0%	0%	3.1	4	13
Transport, Postal and Warehousing	560	610	3%	4%	0.8	5	11
Wholesale Trade	1390	1360	7%	5%	1.3	-3	17
Industrial	4000	3500	17%	20%	0.8	-43	
Total	15,300	20,900	100%	100%	1.0	560	

Note: Group totals reflect figures reported in balance of report for consistency.

Source: ABS Census of Population and Housing, 2011, 2021

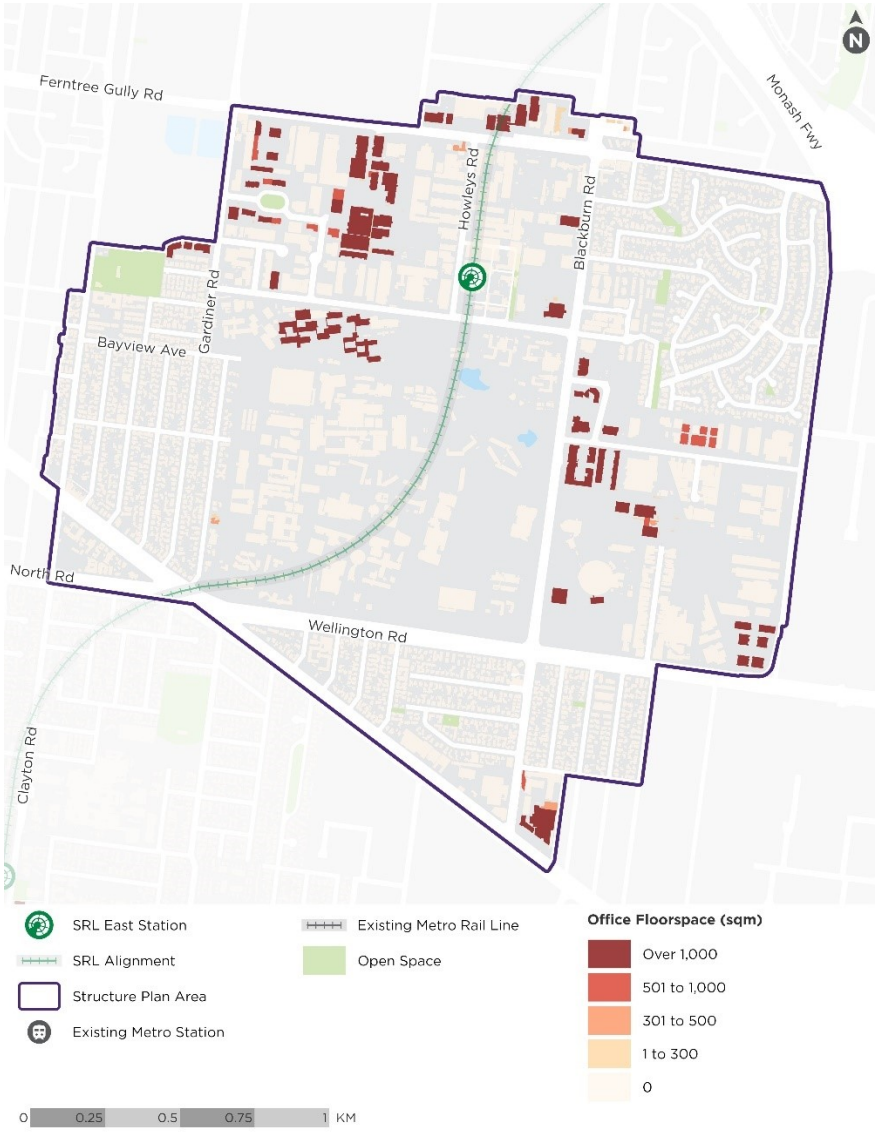


FIGURE B.1 MONASH OFFICE FLOORSPACE, 2024

Source: DEECA, PSMA, Space Syntax, AJM JV

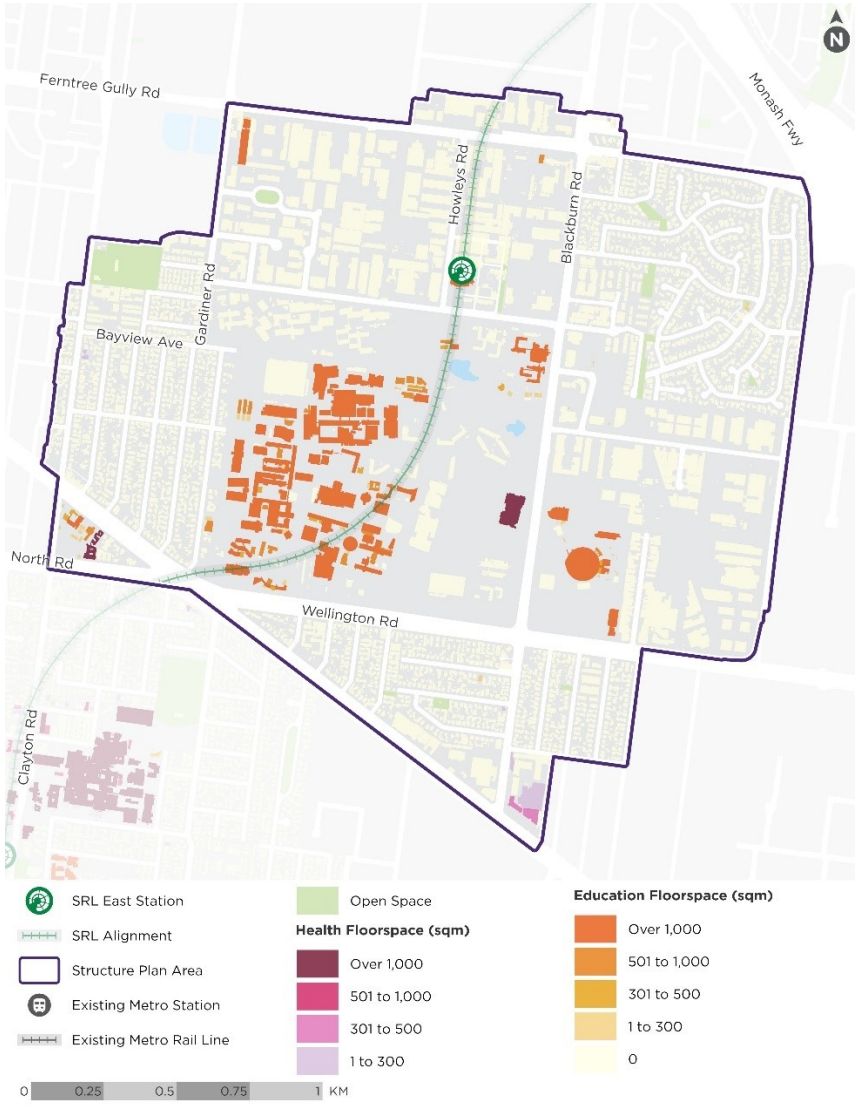


FIGURE B.2 MONASH HEALTH AND EDUCATION FLOORSPACE, 2024

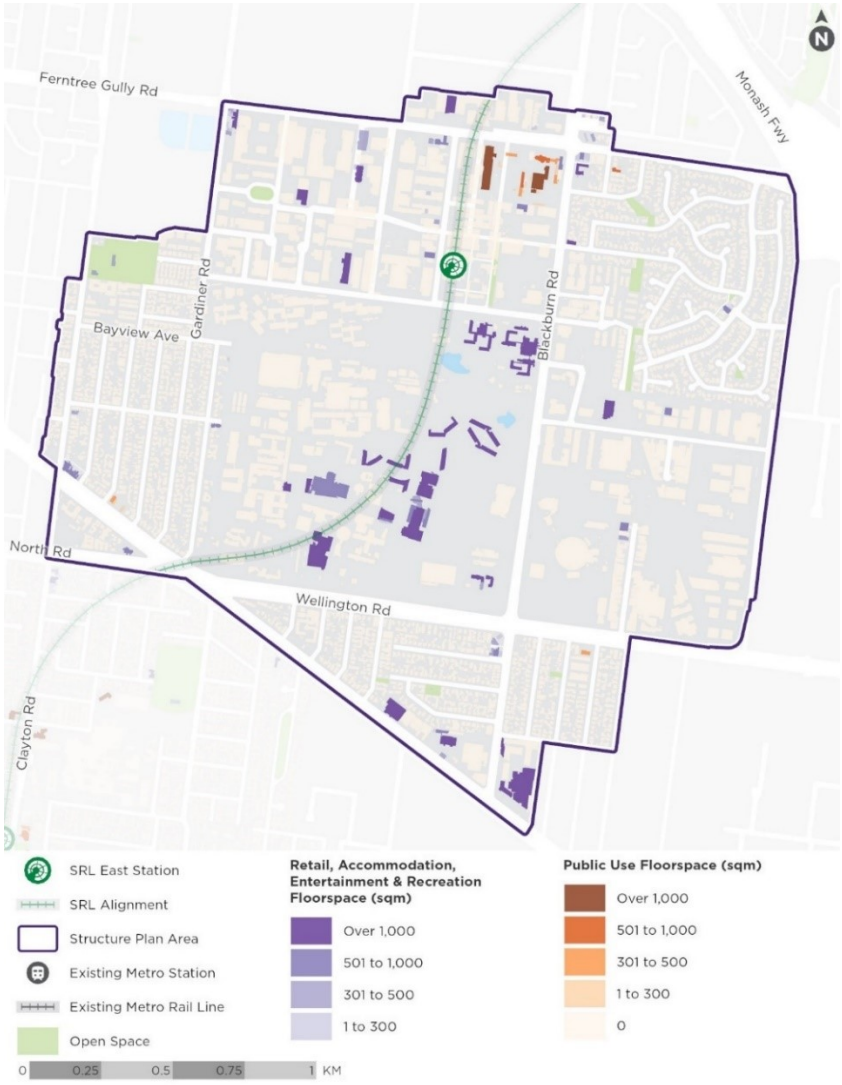


FIGURE B.3 MONASH RETAIL, ACCOMMODATION (INCL. STUDENT ACCOMMODATION), ENTERTAINMENT, RECREATION AND PUBLIC USE FLOORSPACE, 2024

Note: Student accommodation is shown in Figure B.3 but excluded from the floorspace summary in Figure 3.9

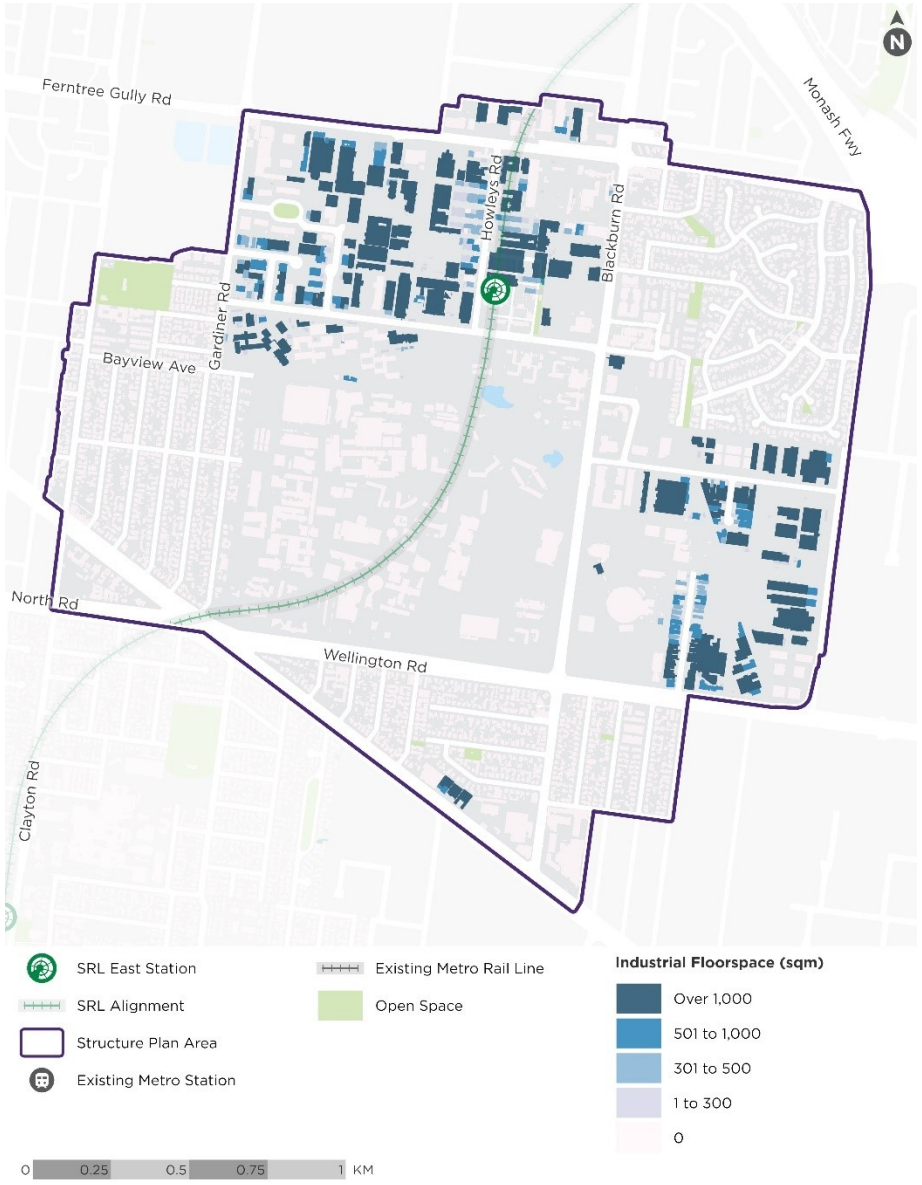


FIGURE B.4 MONASH INDUSTRIAL FLOORSPACE, 2024

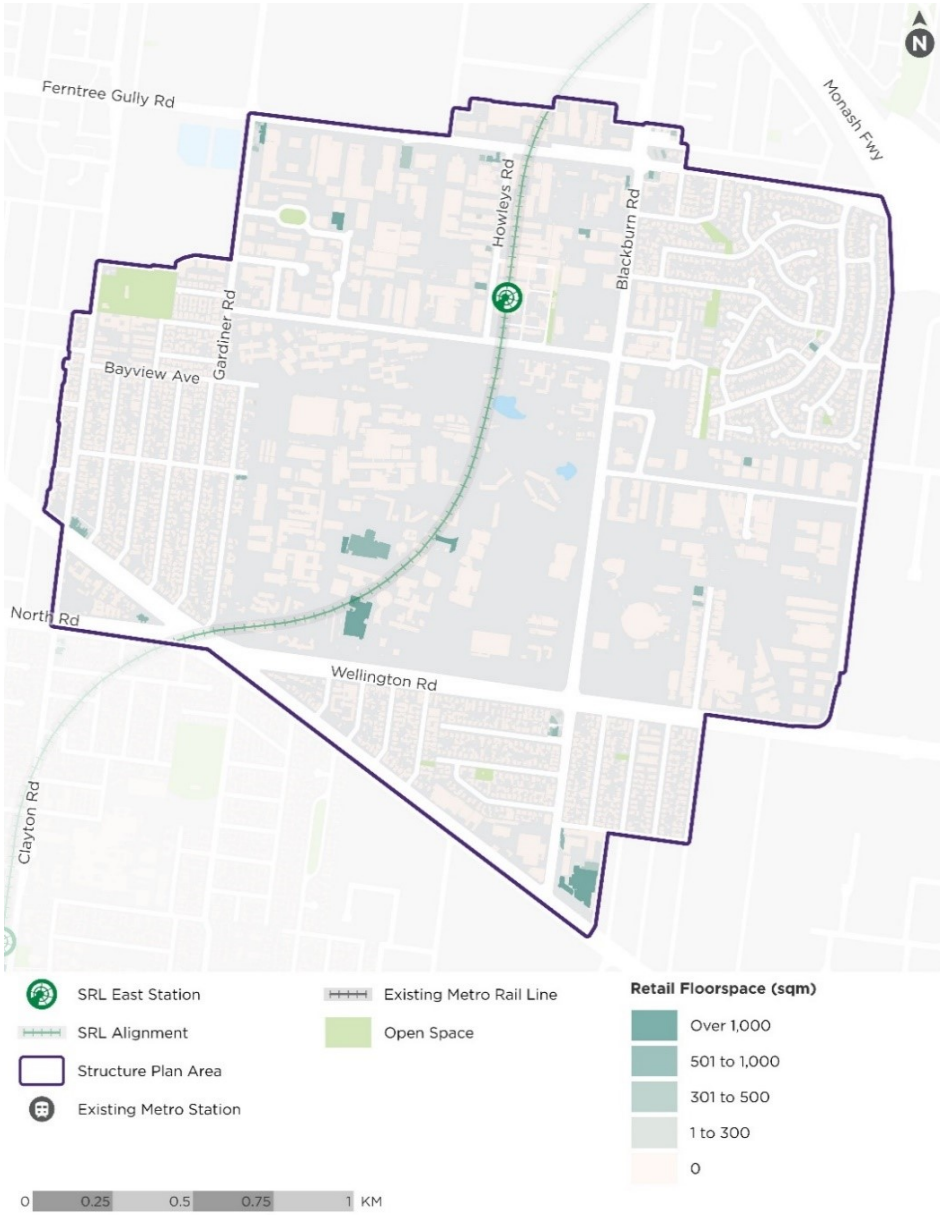


FIGURE B.5 MONASH RETAIL FLOORSPACE, 2024

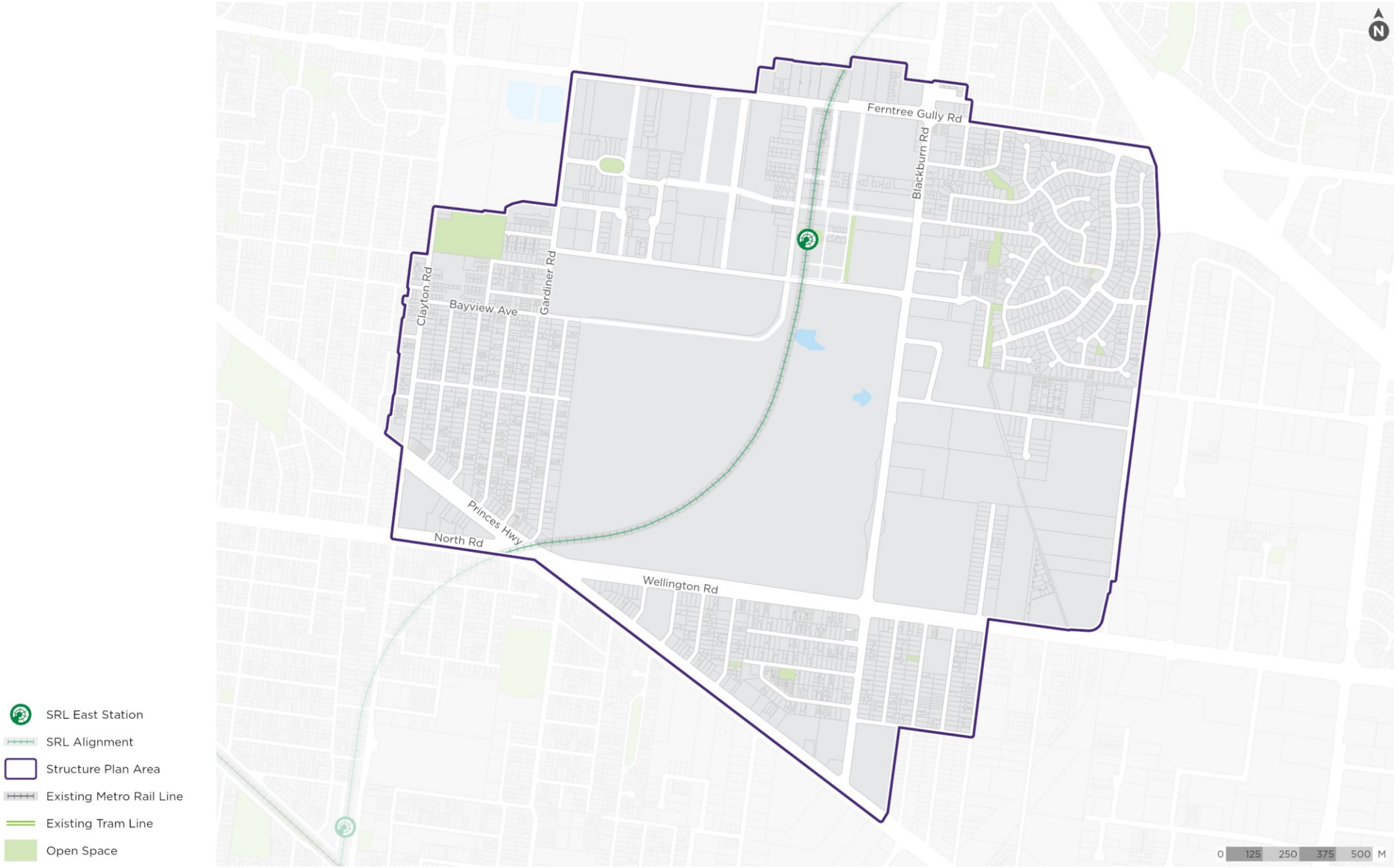


FIGURE B.6 MONASH CADASTRAL MAP, 2024

AJM
Joint Venture

Appendix C

Suburban employment hubs & workplace trends

Sydney suburban employment hubs

TABLE C.1 PROFILE OF SYDNEY'S KEY SUBURBAN EMPLOYMENT HUBS

	PARRAMATTA	MACQUARIE PARK	NORTH SYDNEY	ST LEONARDS/ CROWS NEST	CHATSWOOD	SYDNEY CBD BENCHMARK
Professional services jobs 2021	13,952	15,788	36,577	14,008	9278	237,709
ABS SEIFA Index – Education and Occupation (percentile)	NSW Percentile: 95 Score: 1116	NSW Percentile: 98 Score: 1161	NSW Percentile: 100 Score: 1192	NSW Percentile: 100 Score: 1205	NSW Percentile: 97 Score: 1146	NSW Percentile: 97 Score: 1142
Proximity to work force (weighted mean distance from centre)	<5km	<3km	<10km	<10km	<5km	<15km
Office space 2022 (sq.m)	887,000	909,000	923,000	341,000	273,000	5,163,000
Office space growth 2002-2022	2.3%	2.8%	0.7%	0.04%	-0.3%	0.7%
Office rents 2023 (annual per sq.m)	$350	$360	$620	$575	$500	$900
Rail access	Existing rail on Inner West line and plans for new heavy and light rail networks. Plans for new Parramatta light Rail Stage 1, connecting the Parramatta CBD to Westmead. New Parramatta metro station to the north of existing Paramatta station and located within Paramatta CBD. To link in with Civic Link	Existing rail network expanded through Northwest Metro in 2015 with access to Chatswood and Sydney Northern Line.	Existing integration with Northern Line (T9) and North Shore Line (T1). New Station, Victoria Cross Station, to be located in the North Sydney CBD as part of the City and Southwest line extension.	Existing integration with Northern Line (T9) and North Shore Line (T1). Future investment to be made to extend the Metro North West line to include the new City and Southwest line with a new station at Crows Nest.	Existing integration with Northern Line (T9) and North Shore Line (T1) and the Metro North West Line. The City and Southwest Line will be extended from Chatswood to Sydenham.	Significant integration with 6 existing metro lines of heavy rail. And 3 lines of light rail. Future extensions of the Southwest Line will also add to the network in the CBD.
Key amenities	Retail: Westfield Parramatta Civic uses: Paramatta Library; Old Government House; Paramatta Town Hall Entertainment Commbank Stadium; Secondary Education Tertiary Education & Western Sydney University	Retail: Macquarie Shopping Centre Entertainment and Recreation (Macquarie Ice Rink, Macquarie University Sport and Aquatic Centre) Open Space (Lane Cove River, Mars Creek Fontenoy Park) Education & childcare	Stanton Library Primary Education Secondary Education Early Education Public Space (St Leonards Park)	Public Space Health Retail Technical Education Community Centre	Retail: Westfield Chatswood, Chatswood Chase, major retail strip. Open Space Golf Club Aged Care Early Education Secondary Education	Public Space Town Hall Retail Waterfront Education Museums & Galleries Sydney Opera House

	PARRAMATTA	MACQUARIE PARK	NORTH SYDNEY	ST LEONARDS/ CROWS NEST	CHATSWOOD	SYDNEY CBD BENCHMARK
		Early Education Secondary Education			Library	Community Centres
Institutions	Western Sydney University ; NSW Police Force ; Department of Home Affairs; Department of Communities & Justice; NSW Department of Education	Macquarie University; Macquarie University Hospital; Macquarie Park Data Centre Campus; Transport for NSW; Macquarie University Incubator	Chambers of Commerce; US Foreign Consulate; Sydney Design School; Australian Catholic University (ACU); Royal Art Society NSW	North Shore Private Hospital; Royal North Shore Hospital; TAFE NSW – St Leonards; Health Infrastructure Headquarters; North Shore Health hub	Chatswood Police Station	UTS, USYD, Hospital on periphery of CBD; NSW Parliament; NSW Treasury; Supreme Court of NSW ; Sydney Hospital and Sydney Eye Hospital; Sydney Conservatorium of Music
Key Private Businesses	Westfield Parramatta Myer Parramatta	Macquarie Centre; Optus; Cochlear; DXC Technology ; Ericsson Australia; Toshiba; Fujitsu; AMP Capital	Microsoft; SAP; Coca-Cola; Zurich; Sony; Sydney Morning Herald	Stryker	Westfield Chatswood	Westpac; CBA; EY Optiver; Other major Banks, Financial Services and consulting
Government Support	Designated as a priority growth area by NSW Government Significant Transport investment – Sydney Metro West and Parramatta Light Rail. State-led rezoning of Church Street North Precinct located north of Parramatta CBD.	Designated as a priority growth area by NSW Government 3 New master planned neighbourhoods within Macquarie Park Macquarie Park Innovation Precinct Rezoning Macquarie Park Place Strategy New affordable housing investment.	New Victoria Cross Station Investment	New train station in 2024 (Crows Nest Metro Station) Crows Nest has been identified as an accelerated precinct under the Transport Oriented Development Program including rezonings around the new Crows Nest Metro site. Relocation of Government offices.	Key connecting node for Sydney's metro extension. Investment in developing the Central Precinct Central Sydney Strategic Plan – additional height and density, removal of incentives for residential towers.	Prioritise Employment Growth and Capacity Expansion: max 50% residential land use mix requirement. Increased height allowances from 80m to 110m Streamlined planning proposal processes.

1. *Professional Service Jobs 2021: Census of Population and Housing 2021 – Industry of Employment, Australian Bureau of Statistics (ABS)*
2. *ABS SEIFA Index: Socio-Economic Indexes for Australia (SEIFA) – Index of Education and Occupation, 2021, Australian Bureau of Statistics (ABS). The SEIFA Index ranks areas in Australia according to their relative socio-economic advantage and disadvantage using census data. All areas are ordered from the lowest to highest score with the lowest 1% of areas given a percentile number of 1 up to 100. The higher scores designate higher advantage.*
3. *Proximity to Workforce: Nikolic, N. (2023). Office Market Segmentation at the Intra-urban Level: The Relationship between Office Users and Market Structure (MPhil dissertation, UNSW Sydney). Data represents the weighted mean location of the workforce for each centre. For example, Parramatta's workforce, defined by the weighted mean, lives less than 5km from Parramatta.*
4. *Workforce location of office each office market.*
5. *Office Rents 2023: Australian Metro Office Snapshot, Q^2 2023, Colliers*

Drivers of professional services in suburban locations

TABLE C.2 KEY ELEMENTS IN FOSTERING PROFESSIONAL SERVICES JOBS IN SUBURBAN LOCATIONS

ELEMENT	DESCRIPTION	EXAMPLE OF BEST PRACTICE
Access to large pool of skilled workers	• Businesses need access to deep, skilled labour pool. • Alongside the availability of affordable housing, the commute duration is becoming an increasingly significant factor for workers. • Decreasing housing affordability has pushed many workers to live further away from the CBD, reducing the CBD's pool of potential workers but opened up the pool of skilled workers for suburban hubs.	• Parramatta, located close to the geographical centre of Sydney • Crows Nest/St Leonards, Macquarie Park and Chatswood all benefit from proximity to the workers in the northern suburbs, who have above-average levels of education and a high proportion of residents categorised as 'professionals' and managers
Distinct focus / key anchor	• Universities or large hospitals are pivotal in the formation of suburban employment hubs and in drawing a diverse array of supporting and complementary businesses. • There are opportunities for commercial office spaces to complement universities, hospitals, and research institutions.	• Macquarie Park, precinct anchored by Macquarie University • St Leonards with Royal North Shore Hospital • North Sydney cluster of technology firms
High quality, high amenity	• Businesses and employees alike increasingly demand high quality accommodation and convenient access to amenities such as retail, childcare, services, recreation, and fitness facilities. • With the rise of remote work, the importance of quality office environments has escalated, as employers need to 'earn the commute' of workers. • Offices are increasingly emphasising vibrant and unique environments, featuring ample natural light, comfortable workspaces, picturesque views, state-of-the-art end-of-trip facilities, wellness centres, and outdoor areas. Large floorplates are required to accommodate modern office fit outs (e.g. open plan) and foster stronger worker connections in an efficient manner. • The quality of buildings, amenities, streetscape, and public spaces is vital in shaping a corporate or professional identity for businesses. Ensuring alignment with this identity is a primary concern for tenants when selecting office locations. • Increasing role of residential development to support amenity, deepen retail demand and create day/night activity	• Parramatta, North Sydney, Chatswood and St Leonards/Crows Nest all have an established residential population supporting amenity accessible by workers • Future plans for Macquarie Park includes residential development in order to 'create a lively community in the suburb', also enables the development of further amenities and facilities which can also be utilised by workers. • Outside of Sydney, new and emerging innovation precincts are increasing including residential uses to drive the amenity and vibrancy of the precinct (Tonsley Innovation Precinct, Adelaide; Cummings Research Park, Alabama US; and EcoResponsive Environments in Runcorn UK).
Accessibility to public transport	• Access to public transport, especially rail networks, plays a pivotal role in successful office markets. Research indicates that top-performing office locations in Melbourne and Sydney have over 50% of their stock within proximity to a train station, enabling businesses to tap into a larger talent pool[1].	• Parramatta, North Sydney, Chatswood, Macquarie Park, St Leonards/Crows Nest all located on rail line. • Many of these centres have recently, or are in the process of, expanding rail or light rail services, which will further increase the public transport catchment for workers.
Level of critical mass	• Achieving a critical mass of development within a suburb is essential for creating a self-sustaining office precinct.	• Parramatta, North Sydney, Chatswood, Macquarie Park, St Leonards / Crows Nest all have 273,000 to 923,000 sq.m of office space, creating a critical mass of office activity in these centres.
Capacity for larger floorplates	• Aside from suburban employment hubs supporting jobs close to where large numbers of skilled workers reside, they provide space for expansion that no longer exists as readily in CBDs. This particularly for businesses who require floorplates which cannot be readily accommodated in a constrained CBD. • There has been a trend in recent years of professional firms looking to improve integration of business units and staff. This is best achieved by larger office floorplates with several consecutive floors that are connected by stairs. This includes floorplates of at least 1300 sq.m, often significantly larger.	• Newer buildings in Parramatta developed over the last 15 years have had floorplates around 1300 sq.m or above. Older buildings with smaller floorplates have faced leasing difficulties[3].

ELEMENT	DESCRIPTION	EXAMPLE OF BEST PRACTICE
Relative affordability	• Shortage of employment land supply in the CBD, combined with high levels of demand result in high office rents and often prices many businesses out of CBD areas. • The more affordable office space options in suburban areas makes those areas more attractive to some relative to a CBD location, or influences decisions around having satellite offices. • While Melbourne's CBD has maintained a competitive advantage with rents not growing to the same levels as Sydney, going forward, this could be an increasing factor in supporting businesses seeking suburban alternatives. There is limited capacity for more employment space in the core of Melbourne's CBD, while Docklands, which has offered an outlet for expansion that has maintained affordability, will also fill up in appropriate locations in coming years. This is expected to place upward pressure on rents in central areas, creating an opportunity for suburban areas.	• Typically rents in Sydney's suburban office precincts are 40%-60% below that of the Sydney CBD, providing an affordable price point for many businesses. • Office rents in Parramatta and Macquarie Park are around $350/ sq.m whereas office rents in North Sydney, St Leonards/Crows Nest and Chatswood are around $500-$600/sq.m
Government support	• Governments can support suburban office markets through various means, such as: • Establishing a conducive planning and policy environment, ensuring suitable zoning regulations and rules that facilitate office development in terms of size, design, and parking requirements, tailored to the unique characteristics of each area. • Relocating government agencies, which can help in creating critical mass. • Supporting and collaborating with industries and invest in essential infrastructure like roads, energy distribution, rail, and airports. • Offering additional crucial components like investing in transport infrastructure to improve accessibility and enhancing the public realm.	• Planning frameworks have long supported a high intensity of development around key activity centres such as Parramatta and North Sydney. • The NSW government's relocation of several agencies to Parramatta, including Sydney Water, the Attorney General's Department, and the Department of Education, has bolstered the area's office market.
Investment attraction	Investment attraction strategies are highly varied across Australia and typically operate at the regional or sectoral level. Investment attraction programs are designed to stimulate economic growth, create jobs and foster innovation across various industries. Types of programs include: • Grants to assist with capital costs along with ongoing operational expenditures. • Tax incentives for new and emerging businesses in certain priority sectors. • Infrastructure funding to support new business to set up or expand in a specific location. • Non- financial support through creating networks, partnership and collaboration opportunities.	• The geographical layout combined with high rents and capacity constraints of the Sydney CBD has naturally created a push towards suburban employment hubs, so these strategies have been less common in the Sydney context. • City of Gold Coast's 'Investment and business attraction program' is an example to attract and expand business in an urban region. It includes financial incentives such as cash rebates for capital investments, including land or building purchases, reimbursement on operational expenditure, relocation assistance along with non-financial assistance packages such as ongoing business support, networking and government facilitation[4].

Source: Urbis. Footnotes: 1. Jones Lang LaSalle (2020) Office Precincts for 2030 and Beyond, Report 4: Future Cities Research, May 2020; [2] City of Sydney, Central Sydney Planning Strategy 2016-2013, updated March 2022; 3. Urbis 2015, Economic Review of Achieving A Grade Office Development In Parramatta CBD; 4. Gold Coast City Council,. New Investment and Attraction Program, GCCC Website April 2024.

Case study: Macquarie Park

What is Macquarie Park?

Macquarie Park is NSW's second largest non-CBD office market, comprising an important cluster of leading universities, hospitals and companies in Sydney's north west, approximately 13km from the CBD. The establishment of Macquarie University in 1964 and rapid growth in housing post-war were instigators for the expansion of Macquarie Park's industrial and scientific sectors. Over the decades, policy has shifted towards encouraging increased research and development activities throughout the precinct. For example, in 1979 the Ryde Planning Scheme required industrial employment uses to have a "research and development" component to take advantage of Macquarie University. In the proceeding years, amenity within the precinct grew to service the larger workforce and student population with the opening of the Macquarie Centre in 1979.

The precinct has since attracted a diverse range of R&D and professional service businesses including Optus, Cochlear, NAB, AMP Capital, Fujitsu and Johnson & Johnson. It has also formalised the business community through the establishment of the Macquarie Park Innovation District (MPID), which represents 380 businesses across the life sciences, digital and technology industries.

The wider precinct, Macquarie Park, was designated as a *Priority Precinct* by the NSW Premier in 2020, while the Sydney Metro extension due for completion in 2024 will ensure it is directly accessible to the Sydney CBD and a broad workforce across Sydney's northern suburbs. Housing development within the precinct has also accelerated, epitomised by the Ivanhoe Estate redevelopment, the largest social housing project in Australia. Bringing housing to the precinct is seen to as a way to increase vibrancy and activity.

Within the next 15 years, the precinct is forecast to increase its overall contribution to the NSW economy to $14bn, representing the second biggest contribution to state GDP behind the joint contribution of the CBD and North Sydney. Growth is expected to occur in the Education, Medtech, Biomedical Sciences and Advanced Manufacturing sectors.

Key success factors:

- Macquarie University as an anchor tenant
- Policy framework to prioritise R&D businesses
- Continued transport and infrastructure investment
- Relative affordability of office spaces compared to CBD
- Government support through range of soft and hard infrastructure initiatives
- Capacity for expansion and ability to accommodate large campus-style office buildings
- Focus on enhancing amenity now residential uses to bring greater vibrancy to the Precinct

Key Stats

- 47,000 jobs
- 894,000 sq.m commercial floor space
- 617,000 sq.m premium grade office space
- Commercial core businesses: 19% pharmaceutical; 25% high tech, computing and technology, 20% electronics; 7% telecommunications
- Macquarie University 45,000 students; 3000 staff.
- Macquarie University Hospital 500 staff
- Macquarie Centre 134,000sqm retail floor area

Timeline

1964 Macquarie University

1979 Planning scheme supports research and development

1981 Macquarie Centre

2009 Macquarie Park train station

2015 Connect MPID

2019 Rail connection to Sydney Metro Northwest

2022 Macquarie Park Place Strategy aims to further diversity and grow Macquarie Park with a further 20,000 jobs and 7650 homes

Source:

https://greatercities.au/innovation-districts; SRL Business and Investment Case; MPID Annual Report 2022; Draft Macquarie Park Place Strategy 2021; Macquarie Park Innovation Precinct Place Strategy, August 2022

FIGURE C.1 MACQUARIE PARK IMAGERY

Emerging workspace trends

SHIFT TOWARDS MIXED USES AND ACTIVITIES

Moving towards mixed uses means combining different types of users and activities in one workspace. For instance, this could involve bringing private sector research and development into educational settings, or having office buildings with additional conference or event areas. This mix creates chances for different sectors to collaborate, leading to more innovation and productivity.

INCREASE OF REMOTE WORK

In the aftermath of the COVID-19 pandemic, remote work seems poised to remain, albeit in a scaled-down capacity. According to the ABS Household Impacts of COVID-19 Survey conducted in 2022, 30 % of individuals worked from home either every day or most days, while 24 % worked from home at least once a week. This trend is likely to result in a decreased demand for worker floorspace and alterations in urban travel patterns. Consequently, this has the potential to increase demand for contemporary co-working spaces and suburban business hubs, although businesses offering a network of suburban offices has not materialised to any significant extent to date.

A ‘FLIGHT TO QUALITY’

Competition with home offices and neighbourhood workspaces has driven demand for ultra-luxurious workspaces, particularly offices, with larger proportions of floorspace dedicated to high-quality amenities such as wellbeing rooms, end-of-trip facilities, strong environmental credentials, and outdoor areas. Demand for Premium or A-grade office space is therefore high, with secondary stock likely to see reduced interest.

CO-WORKING SPACES

Accelerated by the increase in remote work and a preference for collaborative environments, co-working spaces are a cost-effective workspace solution that allows businesses to adopt flexible workspace strategies and reduce long-term lease commitments. These spaces can also provide flexible spaces for smaller, emerging firms or allow firms to quickly establish a presence in new locations.

TECHNOLOGICAL ADVANCEMENTS

Increased automation and robotics are altering job roles and skill requirements and has led to a reduction in the amount of floorspace required to complete tasks. Predictions indicate that by 2030, one in 16 workers may need to change jobs due to AI disruptions[1]. This impact on employment underscores the importance of businesses locating near emerging tech or other specialist clusters and co-locating with all sectors of industry to increase knowledge sharing and technology spillovers. Technology advancements also require additional infrastructure to support digital capacity.

SUSTAINABLE PRACTICES

Green workspaces with energy-efficient systems and biophilic design elements are gaining popularity, enhancing worker productivity, and attracting talent. Locationally, proximity to urban areas can help to reduce pollution associated with transportation and meet worker and consumer expectations regarding climate and ESG concerns.

Notes: 1.McKinsey & Company (2023) ‘What is the future of work?’ Available at https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-the-future-of-work

Trends influencing typologies and location requirements

Professional services

Require high amenity and high-quality office spaces, increasingly mixed with other activities to allow collaboration and a vibrant amenity. Locations with excellent access to public transport and amenities are critical and increasingly businesses are seeking large sites to accommodate generous floorplates, collaboration spaces and a high level of technology, data and IT infrastructure.

Professional services industry trends:

- Office from "place to work" to "place to meet"
- Rise in WFH – offices are for collaboration
- High level of amenity within and near workplaces
- Flexible workspaces which can adapt to changing needs, range of tenants and uses
- Generative AI and its associated challenges
- Hub and spoke model of large corporates client facing office in CBD and non-client facing offices in suburban location

Implications for building typologies:

- Mixed use office buildings with retail, residential, hotels, conference facilities, amenities etc
- High-quality internal building amenity with spaces for collaboration, socialisation and meeting
- Large, open-plan and column free floorplates
- Building capacity for high level technology, data and IT integration
- Reducing floorspace per worker, but greater emphasis on collaboration and meeting spaces
- Non-client facing offices, particularly outside the CBD

Location requirements:

- Accessibility to public transport
- Amenity including access to F&B, childcare, gyms
- Proximity and accessibility to workers
- Larger lots for larger floorplates
- Proximity to clients, partners and institutions to enable collaboration.

Example professional services typologies:

High rise office: New Times tower, Box Hill is A to B grade office over 16 storeys. Including lower-level retail spaces (3,750sq.m). Total GFA 10,000sq.m.

Mid rise office: Encore, Cremorne 7-stories above heritage building. flexible floor plates are provided to meet the needs of different tenants.

Modern campus: Array Macquarie Park, NSW. A-grade building with over seven levels and large floorplates. A contemporary commercial centre designed to enable flexible and agile working environments. 10,000sq.m GFA.

Mixed use offices: Walk Up Village Collingwood. 13-storey mixed-use development Provides space for dense workspaces, retail, social spaces, and a hotel. 12,000sq.m GFA.

Office studio: Cremorne Studios, Cremorne. 6 - story development, comprising of flexible studio/office spaces. High environmental standards and full site coverage 10,000sq.m GFA

Institution office: Health Administration headquarters in high quality office space. See following page.

Source: AJM JV, Hassell Studio (2020): Future Academic Workplaces: A Literature Review; COX Architects Vertical learning a new Typology; PWC Changing Places: Designing hybrid offices that work; Allwork (2020) Rethinking workplace density; Savills UK Covid 19 Tenant Impacts Survey; Hassell Studio 2022 Workspace Futures Survey; Alliance CGC 'The future of healthcare real estate: Building location and design trends to watch'; CMBA Architects (2022) Modern School Design Trends; Hassell Studio (2021) How to restructure the workplace after COVID

FIGURE C.2 PROFESSIONAL SERVICES SPECIFIC TRENDS, BUILDING TYPOLOGIES AND LOCATION REQUIREMENTS

Health

Health services are now commonly integrated into **mixed-use** buildings, featuring medical facilities alongside offices, consultation rooms, research spaces, and medi-hotels. These buildings typically accommodate multiple tenants, offer extensive outpatient facilities, and provide various worker amenities, often catering to a 24-hour workforce. **Clustering** remains crucial in the health sector, enabling the formation of provider networks and facilitating integrated patient care.

Health industry trends:

- Health clusters anchored by tertiary provider and supported by a range of smaller providers, enabling continuum of care and the sharing of facilities.
- Health buildings with mixed uses facilities including office space, research facilities, administration, consulting rooms etc.
- Digital Health Platforms such as Tele-Health, AI powered administrative services, remote diagnostics and virtual wards.
- Transition from single service providers to integrated health providers.
- Medi-hotels
- Increased use of outpatient facilities

Implications for building typologies:

- Mixed use buildings which incorporate health floorspace along with office, consulting suites and research space, hotels
- Buildings to contain a mix of individual or related providers.
- Consolidated floorplans with a focus on open floorplan, modular design and technology integration.
- Emphasis on public facing outpatient facilities.
- Building capacity for high level technology, data and IT integration.
- 24 hour activity in health buildings across a range of functions

Location requirements:

- Cluster health and broad range of health-related uses (i.e. office, hotels, F&B, research space etc)
- Accessibility to public transport
- Ensure safety and accessibility for healthcare shift workers
- Amenity including access to F&B, childcare, gyms

Example health building typologies:

Hospitals: Victorian Heart Hospital, Clayton 8-storey out and inpatient hospital, specialising in cardiac treatments and research. Also used for education and training 206 beds.

Mixed use health: Wellington Stage 1, Box Hill integrated healthcare, research and knowledge precinct. Incl. medical offices, consultation suites, labs, and various other health uses. GFA 50,000sq.m.

Mixed use health: Wickham Private Medical & Hotel (QLD). State-of-the-art medical facility with 7 levels of medical ues, 81-room apartment hotel, dual lobby, ground floor restaurant and pharmacy, conference facilities, gym, and pharmacy. 5,307sq.m medical space, 186sq.m retail, 97sq.m function facilities

Health Administration: Co-located on the Royal North Shore Hospital site. Provides office space for ten NSW Health Agencies, a café and childcare centre. GFA 30,000sq.m.

Mixed tenure consult centre: Clayton Road Medical centre. Five storey with medical centre, pharmacy & café. Multi-tenanted. GFA 10,000sq.m.

Smaller consulting suites in retail-based environments

FIGURE C.3 HEALTH SPECIFIC TRENDS, BUILDING TYPOLOGIES AND LOCATION REQUIREMENTS

Education

Education buildings are becoming more flexible and adaptable learning spaces. Contemporary tertiary buildings are often mixed use, providing space for industry collaboration and research commercialisation, along with a range of supporting amenities including accommodation and event space. Location factors include ability to cluster proximity to other research institutes, urban amenities and public transport.

Education industry trends:

- Mixed use and precincts approach to new campus buildings to creative activation, knowledge sharing and partnerships with private industry.
- Shift to open plan and consolidated academic offices
- Continued importance of academic and administrative space
- Remote learning and online assessments
- Amenity driven, purpose blended campuses
- Flexible spaces for study and socialising
- Tech enabled workspaces including video conference capability and collaborative software.
- Green space and wellness-oriented design considerations.
- Shift from campus towards integration with surrounding urban area

Implications for building typologies:

- Mixed use educational buildings with range of education, research, office, collaboration, gathering spaces and areas for private companies.
- Decreased worker density for academic spaces
- Emphasis on building flexibility
- Building capacity for high level technology, data and IT integration
- High quality building and public domain amenity

Location requirements:

- Accessibility to public transport
- Amenity including to access to F&B, retail, entertainment, childcare, gyms
- Co-location with another major institutional provider (i.e. health precinct, R&D precinct)
- Integration with surrounding urban area to share amenities and facilities

Example education building typologies

High density schools: Richmond High school in a vertical arrangement, utilising existing site. GFA of 15,000sq.m. Performing Arts Centre open to pubic.

Integrated campus: Melbourne Connect at University of Melbourne has private office, hotel, teaching & events. Designed to encourage collaboration between interdisciplinary organizations and institutions of all levels. GFA 15,000sq.m.

Integrated campuses : 1PSQ an integrated campus of Western Sydney in the Paramatta CBD. Incudes Graduate Schools, Engineering Innovation Hub and library in 19 storey building and to collaborate with surrounding businesses.

Innovation spaces: University of Wollongong Innovation campus acts as a 'business park' . Includes a business incubator and accelerator, commercial office building, and research centres. 50,000sq.m GFA.

Research focus: CSL Global HQ and centre for R&D18-storey facility including seven stories of labs, four levels of office space, and a collaborative bio-incubator for start-ups in Melbourne's biomedical precinct designed to accelerate Australian biotech. GFA of 54,000sq.m, 3,370sq.m site area

FIGURE C.4 EDUCATION INDUSTRY SPECIFIC TRENDS, BUILDING TYPOLOGIES AND LOCATION REQUIREMENTS

Other population services

Whilst representing a range of activities and building typologies, most population services aim to enhance visitation, visitor experience and cross-expenditure opportunities for the local community. This is often achieved by locating in highly accessible and walkable locations, activating public realm, placemaking and delivering a broad mix of uses.

Other population services industry trends:

- Advanced Chat Bots and AI based customer service
- QR code and digital enabled hospitality
- Experiential retail
- Online retail
- Mixed uses and clustering to drive cross usage, activation and vibrancy
- Seamless digital/physical retail including wayfinding
- Increased localisation of shopping centres into community hubs
- Emphasis on creating spaces to engage with community and sense of place.

Implications for building typologies:

- Integration and activation with surrounding public realm
- Visitor focused facilities and amenity
- Multi-purpose trips supported by mixed buildings and precincts with retail, office, residential entertainment, creative, lifestyle and educational uses
- Placemaking and high quality, activated public realm
- Retail floorspace should be walkable and accessible for visitors of all abilities.
- Reducing the environmental impact of the future retail floorspace (including closed loop malls, more efficient water and energy use and recycled materials)

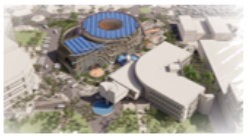
Location requirements:

- Accessibility to public transport for visitors and workers
- Access to large visitor, worker or resident catchments
- Retail and services located proximate to other daily activity to enhance convenience
- Consolidated activity centre core rather than dispersed or less walkable environments

Example other population services typologies:

Entertainment & retail: The Social Quarter at Chadstone Shopping Centre. Mix of entertainment and dining, late night usage. 10,350sq.m. total area

Entertainment: Bridge Road Brewery, East Brunswick. Fine grain dining/brewery development to activate shopfronts



Community: Proposed community hub at Glen Waverley Activity Centre Includes public plaza, library, multi-purpose spaces, and office space with around 6,000sq.m GFA.

Hotels: Hotel Chadstone integrated hotel into a shopping complex. 12-storey, 250 rooms plus event spaces,

Community Spaces: Narrm Ngarru Library, Melbourne integrated into a mixed-use building.

Fine grain retail: Fine grain streetscape at Central Market, Adelaide. Retail within a fine grain street frontage.

FIGURE C.5 OTHER POPULATION SERVICES INDUSTRY SPECIFIC TRENDS, BUILDING TYPOLOGIES AND LOCATION REQUIREMENTS

Industrial

Contemporary, urban industrial precincts (as opposed to larger, state-significant precincts) are becoming increasingly customer and worker focused, resulting in higher amenity mixed employment buildings, with a range of office, storage and light industrial activities. Technology combined with land constraints, is enabling increased floorspace efficiency and higher density buildings. Industrial uses in urban areas also increasingly serve a range of recreation, service and destination uses to surrounding populations.

Other population services industry trends:

- Automation of production processes
- E-Commerce and online stores
- Supply chain efficiency through proximity to suppliers, customers and distribution hubs
- Gentrification of industrial areas towards higher value and mixed uses, serving a surrounding catchment
- Affordable and flexible spaces for startup businesses
- Predictive maintenance and remote monitoring
- Technology enabled processes, maintenance and monitoring
- Enhanced sustainability outcomes

Implications for building typologies:

- Increased floorspace efficiency
- Multi-level warehouses
- Distribution and warehousing spaces
- Data centres
- Higher building and public realm amenity
- Mixed use with office space, commercial showrooms and retail tenancies
- Diversity of uses including visitor focused retail, gyms, education, leisure, breweries, showrooms etc
- Building capacity for high level technology, data and IT integration
- Improved urban realm on site and in the surrounding context

Location requirements:

- Highway and arterial road network access
- Proximity to service consumers in urban locations
- Worker amenity including F&B, childcare, gyms
- Higher visitor amenity, including accessibility and car parking
- Appropriate separation from residential areas

Example industrial building typologies

Modern industrial/ office: Cheltenham Quarter, Cheltenham
Proposed 3-storey commercial and industrial hub located within the Bayside Business District containing 11 purpose-built warehouses, 2,463sqm of offices, three commercial showrooms, and additional retail tenancies.

Modern industrial/office: Work Belrose, Cheltenham provides office/ warehouses. Adaptive re-use development/ 2 storey with office suits, showroom style warehouses and 'high-tech' units.

Modern business park: Caribbean Gardens, Scoresby
Stage 3 buildings includes campus style modern offices at around 8,000sq.m each across 5 levels with large floorplates of around 1,750sq.m.

High density logistics: Ascent Logistics Centre, Alexandria NSW
Proposed multi-level warehouse including 5,000sqm of A-grade office and wellbeing amenity with access to the M8, and Sydney CBD and Sydney Airport within a 10-minute drive. GFA 27,000sq.m.

Advanced Manufacturing: Moderna mRNA Vaccine Manufacturing Facility, Clayton. Pharmaceutical grade space, employee amenities, 103 car spaces, and laboratories. GFA 16,500sq.m.

FIGURE C.6 INDUSTRIAL SECTOR SPECIFIC TRENDS, BUILDING TYPOLOGIES AND LOCATION REQUIREMENTS

Appendix D

Analysis of employment projections

TABLE D.1 MONASH STRUCTURE PLAN AREA EMPLOYMENT FORECASTS

	MON			MON ANNUAL CHANGE (NO.)		MON ANNUAL CHANGE (%)	
	2011	2021	2041	2011-21	2021-41	2011-21	2021-41
Industry:							
Education and Training	5300	8000	15,500	270	375	4.2%	3.4%
Health Care and Social Assistance	300	800	1700	50	45	10.3%	3.8%
Professional Services	3800	4600	15,700	80	555	1.9%	6.3%
Other Population Services	2000	4000	9700	200	285	7.2%	4.5%
Industrial	4000	3500	7400	-50	195	-1.3%	3.8%
Total	**15,300**	**20,900**	**50,000**	**560**	**1455**	**3.2%**	**4.5%**

	SOUTH EAST REGION				GREATER MELBOURNE			
	2021	2041	ANN. CHANGE (NO.)	ANN. CHANGE (%)	2021	2041	ANN. CHANGE (NO.)	ANN. CHANGE (%)
Total Workers	753,500	1,211,900	22,920	2.4%	2,376,700	4,049,500	83,640	2.7%
Industry:								
Education and Training	80,800	132,100	2565	2.5%	224,400	410,300	9295	3.1%
Health Care and Social Assistance	123,400	216,400	4650	2.8%	337,200	658,700	16,075	3.4%
Professional Services	156,300	283,700	6370	3.0%	666,500	1,166,400	24,995	2.8%
Other Population Services	243,100	368,300	6260	2.1%	725,500	1,210,000	24,225	2.6%
Industrial	149,900	211,400	3075	1.7%	423,200	604,100	9045	1.8%
Total	**753,500**	**1,211,900**	**22,920**	**2.4%**	**2,376,700**	**4,049,500**	**83,635**	**2.7%**

Source: ABS Census of Population Aged 15+ in 2011 and 2021, cross tabulated by ANZSIC Level 1 industry. Forecasts to 2041 derived from SRL BIC CityPlan projections.

TABLE D.2 REVIEW OF PROFESSIONAL SERVICES AND HEALTH FORECASTS FOR MONASH STRUCTURE PLAN AREA

	PROFESSIONAL SERVICES	HEALTH
Is the industry employment projection Consistent with historical growth?	**No**, future growth at 6.3% annually is significantly higher than historical growth which was almost 2% over the past decade. Low rate of growth in Professional Services persisted from 2011 to 2016, and therefore seems so be less affected by COVID-19.	**Yes**, health in the Monash Structure Plan Area has performed well over the past decade. This sector more than doubled jobs, albeit from a low base and there were 800 workers in 2021. The number of health workers is likely to have grown further since 2021, with the recent opening of the Victorian Heart Hospital. BIC forecasts to 2041 are largely met by the Heart Hospital, with the projection an additional ~800 workers to the Structure Plan Area to 2041.
Does the industry employment projection align with either broader industry or regional trends?	**Broadly**, forecast rate of growth of professional services in Monash surpasses that projected for Greater Melbourne. In terms of trends, professional services have a low propensity to locate in suburban locations (refer Section 4). Monash has a higher propensity given its role as a NEIC and future access and amenity provided by SRL East and the new town centre. These, combined with other supporting mechanisms may assist with the realisation of the BIC forecasts.	**Yes**, the employment projection reflects recent opening of Victoria Heart Hospital, as discussed above.
Does the industry employment projection align with the competitive strengths of the Structure Plan Area?	**Broadly,** a Monash has been identified with opportunity to grow its professional services offer drawing on growth of key education and institutional anchors and a high amenity town centre with rail access. The proposed rate of growth is considered to be high (on average an addition 555 workers per annum) and will require a range of supports to achieve.	**Yes,** the employment projection reflects that the southern half of the NEIC (around the Clayton Structure Plan Area) should be the focus for health and the Monash Structure Plan should support the Victorian Heart Hospital including a small capacity for growth and an increase in local health services to support a growing resident and worker population.
Does the industry employment projection align with the future economic role of the Structure Plan Area, considering the transformative effect of SRL East?	**Yes,** increasing the share of professional services jobs (from 22% in 2021 to 31% in 2041) is fully consistent with the future economic role of Monash and the opportunity to grow employment leveraging the range of education, R&D and innovation sectors, which will result in commensurate growth in professional services. Further the transition away from industrial uses towards mixed employment will also create further opportunities for professional services in the Structure Plan Area. Delivery of SRL East Station and surrounding town centre will be a key stimulus to growth in professional services jobs.	**Yes**, as noted above, employment projection reflects role of health in Structure Plan Area.
Overall, is the industry employment projection appropriate for the Structure Plan Area?	**Broadly** The significant shift from stagnant to high growth in professional services is consistent with the economic role and strengths of Monash. Achieving this will require a number of interventions, including timely delivery of the town centre, working with existing Monash institutions attract more businesses to the area and ensuring that the future town centre and surrounding commercial areas at Monash are of a suitable scale and amenity to facilitate this transition.	**Yes,** employment projection is appropriate for the health sector, reflects recent opening of the Victoria Heart Hospital and its ongoing role providing some primary health care services for a local population. If anything, the projected growth could be higher. .

TABLE D.3 REVIEW OF EDUCATION, OTHER POPULATION AND INDUSTRIAL FORECASTS FOR MONASH STRUCTURE PLAN AREA

	EDUCATION	OTHER POPULATION SERVICES	INDUSTRIAL
Is the industry employment projection Consistent with historical growth?	**Broadly**, the employment projection reflects that education will continue to drive the local economy and grow strongly through to 2041. Projected growth of this sector at 3.5% annually, or 385 workers per annum. This above historic rate of growth at around 250 workers per annum. Education worker growth will need to be driven by very strong student growth.	**Broadly,** Population serving grew strongly over the past decade, reflecting a large increase in construction industry workers, some of whom are employed in head office locations in the precinct. This subsector is also typically footloose, moving between various construction sites, and therefore a lower floorspace requirement. There was some growth in retail trade and accommodation and food services, albeit from a small base and influenced by the addition of M-City on the edge of the Structure Plan Area.	**No**, Industrial jobs have declined in Monash over the past decade, at a rate of 50 jobs per year. The rate of decline has been faster than the broader South East Regional and Greater Melbourne Trend, and most prominent in the manufacturing subsector. The loss of industrial jobs (with the exception of advanced manufacturing) is consistent with the policy objectives of the NEIC.
Does the industry employment projection align with either broader industry or regional trends?	**Broadly**, education and training growth is to continue at a faster rate the Greater Melbourne, reflective of Monash's role as a NEIC. High forecast growth also aligns with strong demand both nationally and internationally for higher education and national forecasts for continued growth in tertiary education sector[20]. Future policy changes around international students may impact long term growth rates.	**Broadly.** Going forward, growth in other population services is likely to align with broader student, worker and resident growth, particularly for retail. The SRL East Structure Plan - Retail Assessment – Monash specifically considers the demand generated for retail and F&B stemming from growth in resident, workers and students.	**No, g**oing forward, Monash's industrial sector is forecast to growth at 3.7% per annum, or an additional 190 jobs per annum. This is faster than the broader industrial sector trends across the South East Region and Greater Melbourne.
Does the industry employment projection align with the competitive strengths of the Structure Plan Area?	**Broadly**, tertiary education, centred around Monash University is a clear competitive strength of Monash. The projections rely on significant growth in student numbers to result in staff growth. For context, Monash University added 6000 students to its Clayton Campus between 2019 and 2023 notwithstanding the impacts of COVID-19. If this level of student growth and education worker to student was maintained, it would still fall short of the 7700 additional education workers in the employment projection. Student and staff growth is ultimately dependent on Monash University's plans for long term growth. There may be some increase demand for schools resulting from local population growth.	**Broadly**, the BIC projections are a reasonable representation of likely employment growth. Strong population growth is forecast within the catchment, and more specifically, the Structure Plan Area, which will sustain demand this sector. The Monash Structure Plan Area population is projected to grow at 3% per annum which is broadly aligned with the growth rate of other population sectors and the potential growth of Monash as a NEIC. Employment projections forecast strong continued growth in construction (increasing by 2800 workers) which may be overstated.	**Broadly**, Positive industrial growth reflects Monash's role as a NEIC and potential for knowledge, innovation and technology businesses. To achieve this vision will require a substantial shift in the industrial subsector mix, with a move towards higher value, technology and research focused industrial activities such as advanced manufacturing. This will ultimately require a transition that sees the local businesses that are not aligned (e.g., auto repairs, light industrial services) move out of the precinct over time).
Does the industry employment projection align with the future economic role of the Structure Plan Area, considering the transformative effect of SRL East?	**Broadly**, the employment projection does reflect the economic role of the Structure Plan area as a NEIC. Delivery of the education forecasts is reliant wholly on alignment with the growth plans of Monash University. The projections also rely on very strong student growth and given the growth of online learning, growth in tertiary student numbers may not translate to additional students on campus. There may be some increase demand for schools resulting from local population growth.	**Broadly**, the other population services forecasts align with the future economic role and support development of a new town centre at Monash. Other sectors such as arts and recreation and other services are also likely to align with population growth. Forecast growth in construction services may be overstated or could be accommodated through office-based development within the Industrial Areas.	**Broadly,** the employment projections support the growth of higher value industrial jobs, leveraging the presence of Monash University and the wider NEIC. As noted above there is also likely to be a broader loss of traditional industrial jobs as the Industrial Areas transition towards other employment uses. The current pipeline of advanced manufacturing uses is a positive sign that this shift is likely but further supports may be required to accelerate the rate of change, particularly in areas further away from the SRL East station.
Overall, is the industry employment projection appropriate for the Structure Plan Area?	**Potentially**, realisation of the employment projection are wholly dependent on the growth intentions of the educational stakeholders in the Structure Plan Area. Further discussions with Monash University are necessary to validate their future growth intentions.	**Broadly**, the employment projection are a reasonable representation of likely growth in other population services. Strong worker, student and resident growth is forecast in the catchment, and more specifically, the Structure Plan Area, which will sustain demand in this sector.	**Potentially**, achieving the industrial forecasts will require **a** significant shift to better align with the strategic objectives of the Monash NEIC. This would consider higher growth in manufacturing and reducing forecasts across the other sub-sectors, most notably transport, postal and warehousing and wholesale trade. It should be recognised that some of the industrial sector jobs will in time be in a broader range of land uses, including office space.

[20] *Victoria University Employment Projections- May 2023 to May 2033, prepared for the Jobs and Skills (Australian Government). Available at: https://www.jobsandskills.gov.au/data/employment-projections*

AJM
Joint Venture

Appendix E

Floorspace methodology and testing

Overview

This section provides further detail on the methodology and supporting data behind the key assumptions in the floorspace modelling. As shown in the purple boxes in the figure adjacent, these are:

- Deriving employment land use shares in order to understand the distribution of employment by industry group across different land use types, and,
- Workspace ratios for each land use type, outlining they key assumptions used for this Structure Plan Area.

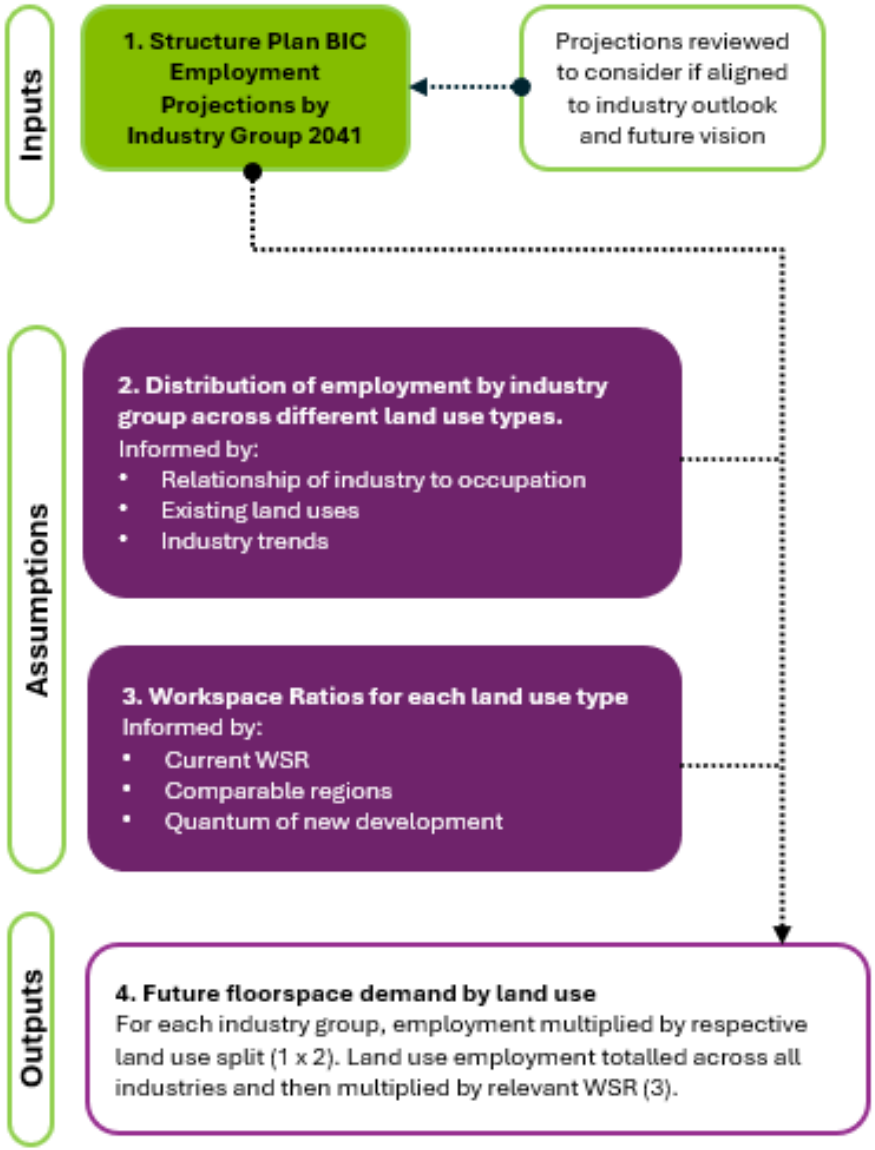


FIGURE E.1 OVERVIEW OF FLOORSPACE DEMAND ESTIMATION APPROACH

Employment land use shares in Monash

Below are the data inputs used to understand the distribution of workers by employment land use type in the Monash Structure Plan Area. As detailed in Section 7.3, this is based on a series of checks:

- **Check 1:** Understanding the relationship between occupations and industries in the Structure Plan Area to provide an indication of the type of floorspace or land use required for the occupation mix.
- **Check 2:** Understanding the existing relationship between occupations and floorspace by looking at the employment floorspace audit of the Structure Plan Area.
- **Check 3:** Projecting the future relationship between occupations and floorspace in 2041 by bringing together long-term industry trends, zoning information and employment floorspace data sets such as City of Melbourne CLUE data, to estimate the future shift in workers by industry toward different floorspace types

CHECK 1: RELATIONSHIP BETWEEN OCCUPATIONS AND INDUSTRIES

Figure E.2 shows a Sankey chart with the top 15 OCCP level 4 occupations found in Monash Structure Plan Area as at the 2021 Census to the left, with links highlighting the proportion that are within each of the 19 ANZSIC industries moving to the right. Occupations have the greatest link to floorspace typology, given they describe what an employee does at work.

For Monash Structure Plan Area, it is noted:

- Education and training is the predominant industry for the top occupation in Monash, University Lecturers and Tutors, who would presumably occupy education floorspace.
- Occupations like accountants, medical laboratory scientists and software and application programmers are spread across several industries and highlight the importance of cross-tabulating occupation and industry to understand floorspace type. For example, an accountant in professional services may be in office floorspace whilst an accountant in education and training is likely in education floorspace.

Source: ABS Census 2021

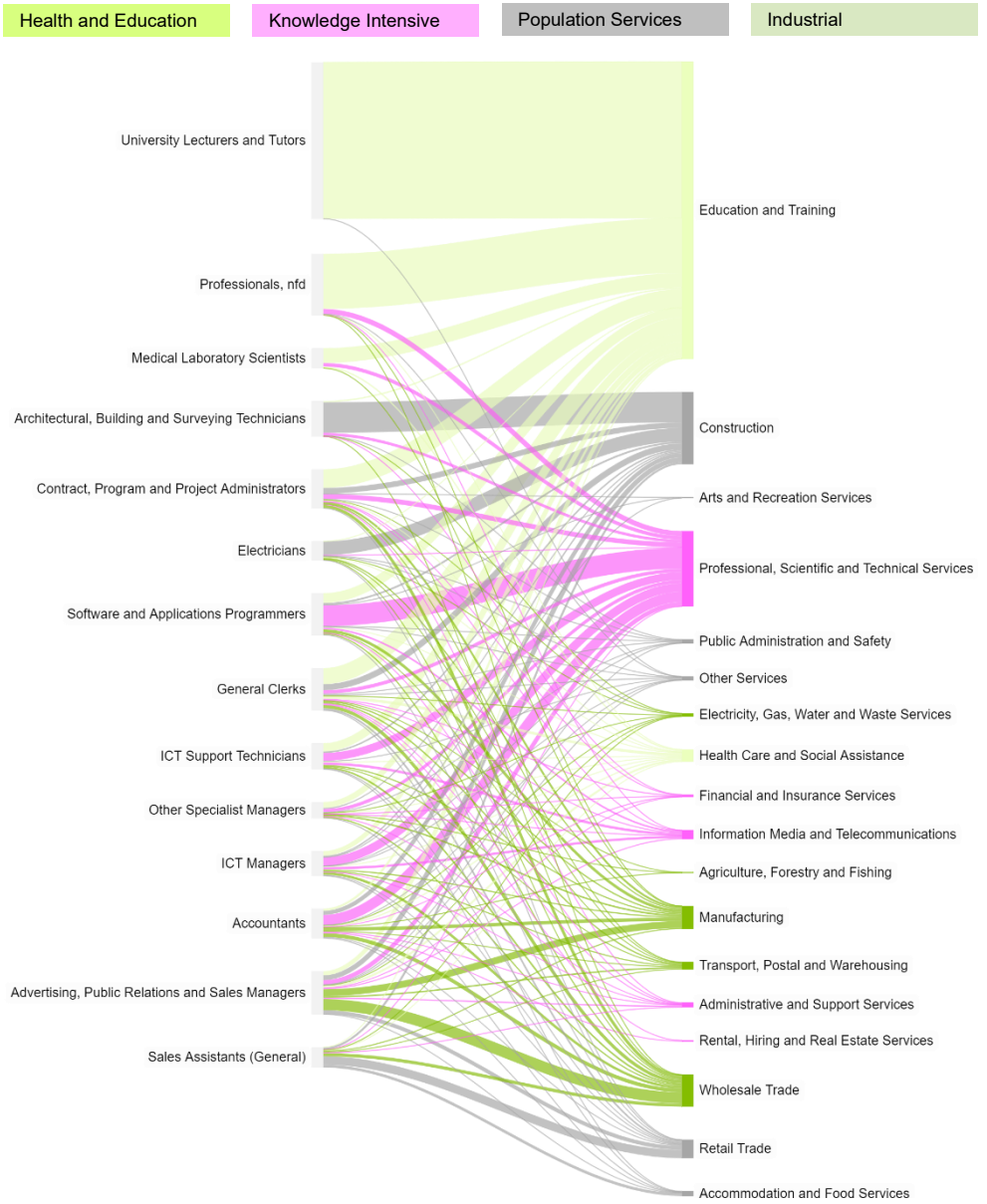


FIGURE E.2 EMPLOYMENT BY OCCUPATION BY INDUSTRY, MONASH STRUCTURE PLAN AREA 2021

CHECK 2 AND 3: RELATIONSHIP BETWEEN WORKERS BY INDUSTRY AND LAND USES IN 2021 (2) AND MOVEMENT TO 2041 (3)

The table adjacent shows the estimated current split of workers by floorspace type in 2021, informed from the land use audit completed for the Structure Plan Area. A description of this audit is in Appendix A.

Table E.1 also shows the change projected to 2041 in the proportion of industry jobs in each land use. These shifts are based on observed trends in the typologies of floorspace (such as health workers using office space at a higher intensity) outlined in Section 9. City of Melbourne CLUE data was also considered to estimate the shift in workers by industry toward different floorspace types as well as applying iterative adjustments with future developments outlined in Section 9.

Where appropriate, tests have been undertaken to ensure known future supply would fit within the projected outcomes.

For Monash this analysis shows:

- Office floorspace in Monash takes the highest proportion of professional services employment. This is typical of professional services which includes industries such as finance, insurance and real estate. Office based employment is also remaining constant or growing in all industry groups bar health, which has a particularly unique distribution due to the addition of the heart hospital in 2023.
- Health care and social assistance industry jobs were mostly in office and industrial space in 2021, attached to health research and development around the university. With the addition of the Victoria Heart Hospital heath floorspace quickly becomes the predominant floorspace use (15% to 93% between 2021 and 2041).
- Most of the education and training jobs are within Monash University and as a result, 91% of all education and training jobs in 2021 were within education floorspace. Out to 2041 there is expected to be more commercial office development that partners with the University to deliver space, such as has occurred around the University of Melbourne in recent years. This has pushed the estimate for education and training jobs into office floorspace up from 9% to 18% in the 20 years to 2041.
- Industrial industry jobs will remain predominantly in industrial floorspace, but an increasing share will go to office space. This office space may be in some way attached or thematically connected to the Industrial Area, like a head office for the nearby high-tech manufacturing.
- There should be more retail floorspace to accommodate the growing population around Monash. This is supported by an increase in the proportion of other population services employment into retail floorspace.

TABLE E.1 MONASH STRUCTURE PLAN AREA LAND USE SHARE ASSUMPTIONS, 2021 AND 2041

	INDUSTRY SECTORS									
	PROF. SERVICES		HEALTH		EDUCATION		OTHER POPULATION SERVICES		INDUSTRIAL	
LAND USE	2021	2041	2021	2041	2021	2041	2021	2041	2021	2041
Office	85%	85%	56%	5%	9%	18%	32%	49%	31%	46%
Health	0%	6%	15%	93%	0%	0%	0%	0%	1%	0%
Education	2%	1%	14%	3%	91%	82%	1%	2%	1%	1%
Retail	0%	0%	1%	0%	0%	0%	18%	21%	2%	2%
Industrial	5%	4%	13%	0%	0%	0%	43%	20%	66%	51%
Public Use	7%	3%	0%	0%	0%	0%	1%	1%	0%	0%
Accommodation	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%
Entertainment. / Recreation	0%	0%	0%	0%	0%	0%	5%	6%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: ABS, CLUE, VPA, AJM JV

Workspace ratio approach for Monash

Workspace ratios represent the amount of floorspace allocated to each worker in a work environment. Although there are typical ranges that are often noted, these can fluctuate depending on factors such as location, industry sector, and the specific needs of individual businesses.

As detailed in Section 7.4, the final workspace ratio is selected following a series of checks:

Check 1: On a land area basis, what will be the density of employment in the Structure Plan and where is this comparable? This will help identify areas around Australia that are currently holding the density of workers that the Structure Plan will hold in the future. This prompts further investigation on the typologies that allow for this. The jobs that are compared are the most comparable industry or set of industries to that floorspace. In the example for office shown below, this is knowledge intensive industries defined for this purpose to include finance, insurance, professional, scientific and technical services, and real estate advisory services.

New office stock in comparable areas is high rise office space directly adjacent to the CBD area of the respective city. New office stock in comparable areas is high rise office space at the fringe of the CBD of each respective city.

FIGURE E.1 MONASH 2041 WORKER DENSITY BY LAND AREA COMPARED TO AUSTRALIAN SA2'S

Source: 2021 ABS census for population aged 15+ workers by ANZSIC industry, imagery from real commercial advertising

Check 2: Understanding existing WSR in the Structure Plan Area, by combining by combining the audit of floorspace in the Structure Plan Area and the analysis of workers recorded by the ABS Census 2021. This provides a baseline for future shifts to be incorporated from, and more accurately estimate the need for floorspace. This is then shown in comparison to benchmarks from the City of Melbourne, City of Sydney and Perth to gain an understanding on where the Structure Plan sits currently and why. To bring the floorspace audit in line with the benchmark comparisons a translation of floorspace from GBA to GLA has to occur. This is estimated using building level data from CLUE 2016 as shown in Figure E.2.

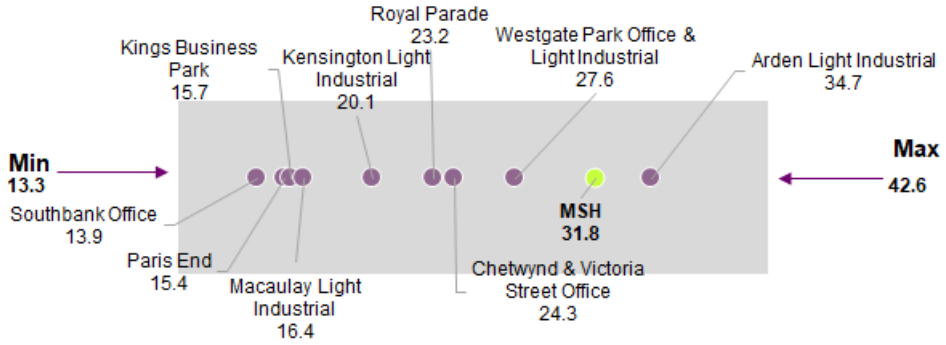
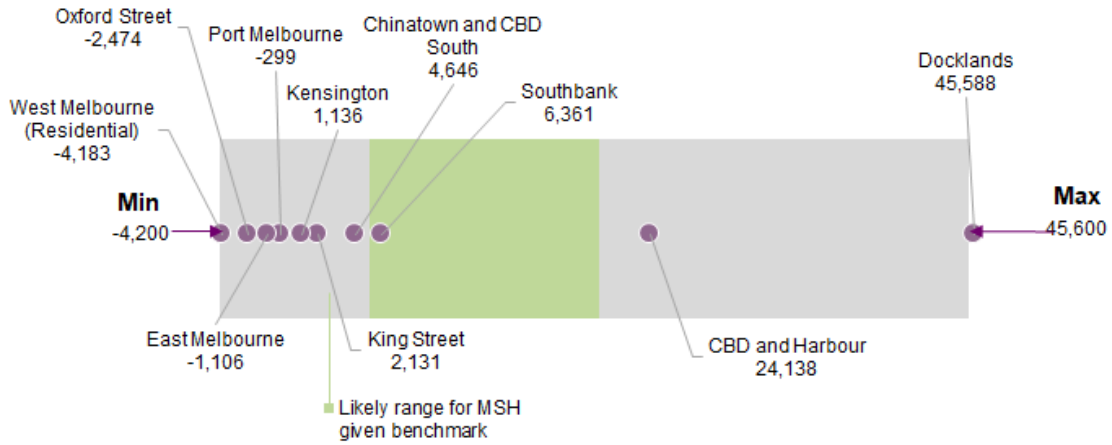


FIGURE E.2 MONASH OFFICE WSR IN COMPARISON TO BENCHMARKS

Monash currently has a very high office work space ratio. It sits around areas of Melbourne, Sydney and Perth that are made up of larger box office conversions. The significant research-based office component of Monash will be driving this ratio upwards. The significant research-based office component of Monash will be driving this higher ratio.

Check 3: Again, bringing together benchmark data from the City of Melbourne and City of Sydney, the annual volume of floorspace growth in different areas is considered. This is checked against the range of growth scenarios that emerge by applying the 10th and the 90th percentile of workspace ratios in Check 2 against forecast the forecast jobs by type in the structure plan. For example, below shows that Monash would grow at between 5800 and 21,000 sq.m per annum from 2021 to 2041 if either the 10th percentile (14.5 sq.m per worker) or the 90th percentile (27 sq.m per worker) from Check 2 are applied to Monash's 2041 office jobs estimate.



Future growth in commercial office space in Monash is bound to be significant, with at growth at least in line with an area like Southbank (Melbourne) but could stretch as high as CBD and Harbour (Sydney).

This points to the high number of office-based jobs that are expected within the Monash Structure Plan. Significant office growth will be needed to support them.

FIGURE E.3 COMPARISON OFFICE 10 YEAR ANNUAL GROWTH BY VOLUME (SQ.M)

Source for both figures: City of Melbourne 2016 Census of Land Use and Employment, detailed information with breakdown of floorspace types by building. CLUE (City of Melbourne floorspace census), FES (City of Sydney floorspace census) and PLUC (Perth land use census) data to get a range of workspace ratios to compare with Monash)

Check 4: Given a certain level of space as "new" and a certain level as "renovated" at different scenarios of growth, there will be a quantity of space left over as old floorspace in the Structure Plan Area. Within CLUE data, older floorspace has either remained constant or increased in its workspace ratio over time. By applying this assumption, the range of workspace ratios that can be applied to the Structure Plan Area can be further limited.

TABLE E.2 MONASH STRUCTURE PLAN AREA WORKSPACE RATIO ASSUMPTIONS

LAND USE	EXISTING WORKSPACE RATIO 2021	WORKSPACE RATIOS IN KNOWN BENCHMARK AREAS[1]	FUTURE PRECINCT COMPARABLE LOCATIONS[2]	TESTING WSR AGAINST PROJECTED EMPLOYMENT FLOORSPACE GROWTH	RECOMMENDED WORKSPACE RATIO FOR STRUCTURE PLAN 2041
Industrial	109.0 [GLA], 119.6 [GBA]	54.7 - 481.1 [GLA]	Murarrie, Braeside, Geebung, Bibra Industrial, Richmond (South) - Cremorne	Industrial floorspace is the largest use by total floorspace in Monash. Some of this space is expected to be converted to other uses such as office, but a significant proportion, namely the space attached to research, development and manufacturing associated with the University, is expected to expand its footprint. The new floorspace will also be different, with greater land values emerging, sites will be forced to be more efficient with their space. Workspace ratios have been reduced to 109.7 sq.m per worker, pushing below the mid-point of benchmark areas. This allows for growth in the sectors identified above whilst also shifting some industry types that have been traditionally housed in industrial floorspace into other floorspace types at a higher rate.	100.0 [GLA], 109.7 [GBA]
Education	60.7 [GLA], 71.3 [GBA]	30.4 - 110.6 [GLA]	Darlinghurst, Southbank - East, South Yarra - West, Surry Hills, North Sydney - Lavender Bay	The share of education floorspace in Monash will shift further towards Monash University out to 2041 given the capacity for growth on this site relative to the other education providers in the area. Tertiary education has a lower workspace ratio than primary and secondary education space. Growth should also be high relative to benchmark areas given the significant weighting of education floorspace. A slight shift down to 64.7 sq.m per worker gives the expected shift in older floorspace whilst also allowing for growth that is around the 75th percentile of comparable areas.	55.0 [GLA], 64.7 [GBA]
Office	31.8 [GLA], 41.4 [GBA]	14.5 - 27.0 [GLA]	Newstead - Bowen Hills, Barton, Richmond (South) - Cremorne	Office based employment will grow by nearly three times out to 2041 from an already high base. This will lead to significant additions of floorspace. New office floorspace has low workspace ratios. Monash is expected to be a combination of higher rise office towers with workspace ratios approach 12 sq.m per worker with the current mix of research and development based office that has higher work space ratios to account for equipment and storage space. Workspace ratios fall significantly but remain at around 30 sq.m GBA per worker by 2041, down from 41.4.	23.0 [GLA], 30.0 [GBA]
Health	20.7 [GLA], 24.4 [GBA]	17.9 - 101.8 [GLA]	Fitzroy, South Yarra - West, Melbourne CBD - East	There is only a very small amount of health space currently. Future space will completely alter the work space ratio. The Victorian Heart Hospital was built in the area in 2023 and an estimate of the floorspace and jobs attached has also had a big impact on the future work space ratio. Beyond the Heart Hospital, growth is expected in health specialist space that will attach itself to the hospital as well as expansion of the everyday health offer to service the expanding student, resident and worker population. Workspace ratios rise as a result of the above, moving from 24.4 sq.m GBA per worker in 2021 out to 29.4 sq.m per worker in 2041.	25.0 [GLA], 29.4 [GBA]
Entertainment / Recreation	153.8 [GLA], 188.4 [GBA]	25.4 - 265.6 [GLA]	Parramatta - North, Albert Park, Randwick - South, Bondi Junction - Waverley, Paddington - Milton	Entertainment and recreation floorspace in the future structure plan will be oriented towards indoor entertainment for the future workers, residents, and students. This includes gyms, bars and arts workshops. These spaces are more comparable with retail floorspace on a workspace ratio basis. As a result, future workspace ratios should reduce significantly from the high levels currently influenced by large recreation spaces such as the Monash University Aquatic complex.	80.0 [GLA], 98.0 [GBA]

LAND USE	EXISTING WORKSPACE RATIO 2021	WORKSPACE RATIOS IN KNOWN BENCHMARK AREAS[1]	FUTURE PRECINCT COMPARABLE LOCATIONS[2]	TESTING WSR AGAINST PROJECTED EMPLOYMENT FLOORSPACE GROWTH	RECOMMENDED WORKSPACE RATIO FOR STRUCTURE PLAN 2041
Retail	36.2 [GLA], 43.0 [GBA]	20.8 - 48.6 [GLA]	South Yarra - South, Glebe - Forest Lodge, Abbotsford, Hornsby - East, Rosebery - Beaconsfield	Retail floorspace demand is discussed and calculated in the separate SRL East Structure Plan - Retail Assessment – Monash. Retail jobs are forecast to increase almost threefold from 790 to 2210. These jobs will service an expanding retail offer developing to service the new workers and residents. This will be largely speciality shops, F&B and dining which have lower work space ratios on the spectrum of retail typologies. This should push workspace ratios downwards and estimates have the workspace ratio on a GBA basis moving from 43 sq.m per worker to 27.9 sq.m per worker. Higher ratios now are a function of large format uses and some vacancy as at 2021. Note also that retail workspace ratios are a function of retail jobs and retail floorspace (derived from the SRL East Structure Plan - Retail Assessment – Monash) being calculated independently.	23.3 [GLA], 25.7 [GBA]
Accommodation	361.4 [GLA], 499.7 [GBA]	153.7 - 604.6 [GLA]	Melbourne CBD - North, Brisbane City	Accommodation floorspace ratios have been decreased to better match the benchmark areas and allow for expansion of one or two commercial accommodation buildings that will accommodate worker, student and resident growth.	300.0 [GLA], 414.8 [GBA]
Public Use	30.8 [GLA], 41.1 [GBA]	24.9 - 428.8 [GLA]	Hobart, Canberra Airport, Greenway	There will only be around 220 more public use jobs in Monash out to 2041. There is not expected to be significant growth in floorspace as a result, and workspace ratio declines will be predominantly to increase efficiency of existing space whilst leaving room for limited expansion.	30.0 [GLA], 40.0 [GBA]

Note: Retail floorspace figure in this table is the mid-point of the GBA range outlined in the Retail Needs Report.

Source: AJM JV. Notes (1) The 10th to 90th percentile of workspace ratios were selected from the selected benchmark locations to remove outliers (2) Comparable locations were selected based on a review of employment density and development and building typologies across major Australian cities, similar to the anticipated outcomes in the Structure Plan Area

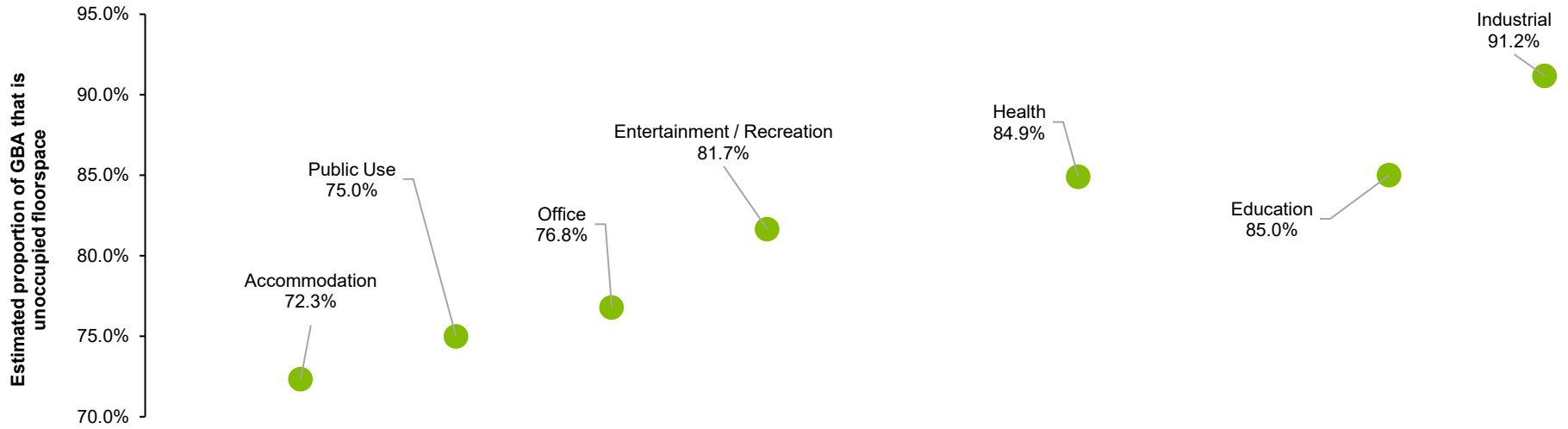


FIGURE E.4 MONASH STRUCTURE PLAN AREA GLA AS A SHARE OF GBA

Source: City of Melbourne building level CLUE data, obtained in 2017 for the calendar year 2016

Appendix F

Peer review report

Suburban Rail Loop East Precinct Planning Peer Review of Economic Technical Report Monash Station Precinct

14/02/2025

1.1 Scope of Peer Review

SGS Economics and Planning (SGS), led by Julian Szafraniec, have been engaged by White & Case together with Clayton Utz acting on behalf of the Suburban Rail Loop Authority (SRLA) to provide a peer review of the Monash Economic Profile Report (Technical Report) for the purpose of informing the Structure Plan (SP) and draft planning scheme amendment (PSA) for the Monash structure plan area (SPA).

SGS was first engaged in relation to this matter in early 2024, and through an iterative approach, has reviewed the housing and economic technical reports for all six SRL East precincts, along with the land use scenario and capacity assessment (LUSCA) report. This peer review report documents SGS' findings as they relate to the Technical Report (dated February 2025).

The peer review advice addresses:

- The appropriateness of the methodology used to translate employment projections (developed as part of the Business and Investment Case (BIC)) into various employment floorspace needs for the Monash SPA, specifically for the purposes of informing the SP and draft PSA.
- Understanding if the results of the analysis have then been appropriately presented and suitable precinct recommendations have been developed to inform the SP and draft PSA.

The peer review does not consider:

- Broader macro and regional trends, alternative employment growth forecasts for the SRL corridor or station precincts, or the appropriateness of earlier studies, such as the BIC.
- Other technical reports or matters, such as urban design, traffic and community infrastructure.
- The extent to which the recommendations from the Technical Report were ultimately used and implemented in the Monash SP and draft PSA.

1.2 Summary of peer review

The remainder of this peer review document is structured as follows:

- Section 1.3 provides a summary and peer review of the appropriateness of the method used in the Technical Report for the purposes of informing the SP and draft PSA. This is consistent across all six precinct peer review reports as a consistent method was applied.
- Section 1.4 provides a peer review of the results and recommendations for Monash SPA specifically.
- Section 1.5 provides final concluding remarks from the peer review of the Technical Report.

1.3 Appropriateness of methodology, assumptions and limitations

The Technical Report is split into four Parts, along with an Executive Summary and a set of Appendices. The same overall structure, and method, for determining employment needs within the SPA has been used consistently across all six SRL East precinct reports. In summary the structure is as follows:

- Executive Summary provides an overview of the analysis and recommendations in the report.
- Introduction (Section 1) details the scope, key definitions, key assumptions, limitations and how the report relates to other technical reports and the SP process.
- Parts A and B provide a summary of key regional and local policy and employment trends.
- Part C contains the core analysis work and details how employment projections were reviewed and translated into various employment floorspace needs for the Monash SPA specifically.
- Part D provides recommendations specific to Monash to inform the SP and draft PSA.

The advice contained within this section of the peer review report focuses on the appropriateness of the methodology used (primarily documented in Part C) along with key definitions, assumptions and limitations (largely summarised in Section 1 and the Appendices of the Technical Report). It also provides some commentary related to the appropriateness of the contextual research contained in Parts A and B.

Key inputs and interactions with other background technical reports

Given the scale of SRL, the evidence base to inform the SP process includes many technical and background reports which investigate specific issues and combine into an overall package.

A key input into the Technical Report is the 1600m catchment precinct employment projections which were derived using CityPlan as part of the BIC (August 2021). This is documented in Section 1.6 and in Appendix A of the Technical Report. How they have been used, limitations and uncertainty associated with those inputs are also clearly noted. This includes noting that these projections are strategic and should be considered indicative and that material events (i.e. COVID, 2021 Census) have occurred since their development. A key feature of the analysis method, discussed later, is also a review of these projections against the latest market trends and drivers to identify where risk and interventions might be considered as part of the SP process.

Another key input for the Technical Report is the 2021 ABS Census. The Technical Report appropriately notes that this data was collected during COVID-19 restrictions and that caution should be applied when using place of work employment data from that Census period. To mitigate this, the report also utilises 2011 and 2016 ABS Census and other datasets as part of the analysis to provide additional context, which is an appropriate response.

The Technical Report also interacts with other technical reports, including directly inputting to LUSCA (which SGS has separately completed a peer review of) and the SP. The scope and interactions with these other technical reports and the SP has informed the approach taken in the Technical Report. These interactions and broader body of work are clearly documented at Section 1.7 of the Technical Report and have been considered as part of the peer review - rather than considering the Technical Report purely in isolation.

Appropriate specification and application of definitions

For the Technical Report to appropriately inform a SP process, it is critical that any analysis directly relates to the SPA and planning horizon in question. Further, any definitions should be clearly defined and consistently applied to ensure results can be interrogated and correctly used in subsequent work.

These definitional aspects are primarily documented in Section 1 and Appendix A.

- Geography: the Technical Report results and recommendations specifically relate to the whole SPA (as summarised in Section 1.8 of the Technical Report). Various inputs consider alternative geographies, including a '1600m catchment' definition, travel zones and Local Government Areas. The Technical Report does not fully clarify the fact that the 1600m catchments were originally used for BIC employment projections, with assumptions made in the Technical Report analysis to apportion this down to the SPA. In Appendix A there is some commentary on spatial misalignment limitations generally, which are common in this type of analysis, but the specific method is not clarified. However, review of the results for each SRL precinct (further discussed in Section 1.4) indicate the apportionment is within plausible ranges and further analysis of the resulting SPA employment results as part of the method process has determined their suitability for informing the SP process. While the link to the BIC and clarification of approach appears to be lacking, I believe it has not actually materially impacted the results and recommendations used to inform the SP.

  In addition, the Technical Report includes no sub-precinct results, beyond high-level locational recommendations and opportunities in Section 11. While more spatially detailed analysis could often be contained within a Technical Report such as this, that analysis has been completed in the LUSCA and with input from other technical reports, such as Urban Design. When considered as a package of technical reports which inform the SP process, I believe this is an appropriate approach, but increases the importance of having clear definitions that are consistently applied across all technical reports.
- Time horizon: the Technical Report analysis considers employment needs out to 2041 (20 years from 2021 or 17 years from 2024). I believe this an appropriate planning horizon for SP purposes and is consistent with the planning horizon for housing.

  Employment and floorspace: how a job, or worker, is defined, and counted, can heavily influence how the results should be interpreted and used in other work. The definition of a job has been defined in Section 1.5, with the definition also consistent with the standard ABS definition. Job classifications by industry, based on standard ANZSIC definitions and a custom land use classification has also been documented. Various floorspace ratios have also been defined in Section 1.5 and used consistently throughout this report and in other technical reports. I believe these definitions are all clear and appropriately applied throughout the Technical Report.

Suitability of background policy and economic potential

Given the SRL precincts exist within an established urban context, it is critical that there is some analysis of the broader context and current state of the precinct and the economy. This contextual analysis helps establish the baseline trends and informs the economic and employment potential and plausibility of projections, key assumptions and the recommendations.

Part A and B of the Technical Report includes this contextual analysis:

- Part A details the relevant strategic context at state and local government level as well as providing a baseline understanding of the current economic outcomes for the precinct which provides the relevant

economic and employment data. Most data has been sourced from the ABS Census, but more recent data sources provide up to date context and additional information to inform the future outlook.

- Part B details the role of suburban employment hubs and the potential growth trajectory for professional jobs in the SPA. The report details key factors to support development in the precinct as well as case studies for other similar locations. This section also considers trends in specific industries, the changing nature of work and how this will influence future needs for the SRL precincts, as well as an analysis of strengths, weaknesses, opportunities and constraints for the SRL precinct.

Analysis of economic context is comprehensive, and the assessment of the SRL precinct policy status and potential seems reasonable. Part B further details the relevant trends and drivers influencing the SRL precinct and provides comprehensive and appropriate employment implications that should be considered when assessing the suitability of the employment projections and their alignment with established market conditions. The structure and use of consistent industry categories also enables this contextual analysis to be easily tracked and translated into the subsequent work around review of the forecasts and recommendations.

Identifying future employment floorspace needs

The core purpose of the Technical Report is to estimate the economic and employment floorspace potential of the SPA, to inform subsequent technical reports and the SP and draft PSA process.

Part C and Appendix D and E of the Technical Report details the method used to review and estimate the employment floorspace requirements. The broad steps are provided in Section 7.2, as follows:

- Review of employment projections (from the BIC) by industry group.
- Determine the distribution of employment across different land use types.
- Establish workspace ratios for each land use type.
- Calculate future floorspace demand.

These steps are discussed in further detail below:

- The first step involves a review of employment projections for the SPA from the BIC. As noted earlier, it is unclear from the Technical Report how employment projections for the SPA have been derived from the 1600m catchment data contained in the BIC. Despite this, they do seem broadly reasonable and consistent with BIC projections.

  It is clearly stated that projections have not been refined and only one future scenario (from the BIC) is considered. Instead, the focus of the review is to clearly highlight where growth is supported by the market/ trends or where risk exists or intervention is required. There are a range of suitable ways this aspect of the analysis could have been completed. Alternative or adjusted employment projections could have been developed as a result of the review. However, this would have required much broader (metropolitan wide) analysis (given the scale of SRL) to determine the plausibility of redistributions from/to other locations across Melbourne, which would have significantly expanded the scope of the Technical Report and potentially duplicated previous work. While updated projections and additional scenarios would be helpful, and might have addressed some limitations in the current projections, for the purpose of informing the development of the SP, reviewing the existing projection set, with clear commentary on risks, areas of flexibility, key opportunities and interventions required, is still an appropriate and efficient approach. This approach accepts that projections are inherently uncertain and places more focus on the general guidance and implications around the employment

projections for the SP to consider, rather than additional analysis that seeks to refine a single employment projection outlook which the SP should plan to.

- The translation of employment by industry to land uses is an effective approach that recognises the differences between employment industries and the spaces that different businesses within an industry occupy. This is important when seeking to convert the employment into floorspace requirements for the SP. The translation matrix has been derived based on local employment industry and occupation data, a comprehensive synthesised local land use audit and consideration of planning policy and economic trends. This method is clearly documented, and I believe results in a robust translation matrix which is specific to the SRL precinct and potential economic change in its future.
- Workspace ratios for each land use type and specific to the SRL precinct are derived from the City of Melbourne – Census of Land Use and Employment (CLUE) data and the local floorspace audit. It is also noted that the workspace ratios have been adjusted to reflect changes in built form attributes of new versus old floorspace as well as changes due to flexible working arrangements. This is all clearly documented and further evidenced with benchmarks in Appendix E. These ratios are all within typical industry standard ranges and the detailed approach ensures a more robust estimate of floorspace is calculated, as it reflects differences unique to each SRL precinct.
- Workspace ratios are then applied to employment by land use to determine floorspace requirements. This estimated demand is then thoroughly tested against a range of market criteria and case studies by land use type to determine how likely it is to be delivered by the market and what interventions and other consideration should be considered by the SP. I believe this is a robust assessment of the employment floorspace requirements within the SPA which clearly demonstrates some key opportunities and challenges or risks for certain employment sectors across the SRL precinct and which the SP will need to consider.

1.4 Station precinct analysis findings and recommendations

The following section considers how the method was applied to Monash SPA specifically and provides a review of the results and recommendations that have been developed.

Employment projection and spatial allocation

Table 1 below shows how employment growth is allocated to the SPA, relative to the wider 1600m catchment definition using data in Table 8.1 of the Technical Report. The second row, presenting the *SPA as share of 1600m Catchment* has been separately calculated to help with the peer review process. As of 2021 the SPA represents 61 per cent of the 1600m catchment employment. For Monash, the SPA captures 77 per cent of net employment growth, which sees the overall share of employment increase to 69 per cent by 2041.

For comparison, as of 2021 the SPA for all six SRL East precincts combined represents 73 per cent of their respective 1600m catchments employment and combined they are estimated to capture 84 per cent of the 1600m catchment employment growth by 2041.

The share of employment allocated to the SPA increases, which overall I believe is appropriate and consistent with the development and staging focus for the precinct - focused around the central neighbourhood, SRL station and leveraging the Monash University and CSIRO.

Table 1: Employment change by geography, 2021-2041

	Projected employment (no.)		Change (no.)
	2021	2041	2021-2041
Structure Plan Area	20,900	50,000	29,100
SPA as share of 1600m Catchment	*61%*	*69%*	*77%*
1600m Radius Area	34,300	72,000	37,700
South East Region	753,500	1,211,900	458,400
Greater Melbourne	2,376,700	4,049,500	1,672,800

Source: Derived from Table 8.1 of the Economic Profile Assessment, AJM, Feb 2025

Employment and floorspace requirements by land use type.

Overall, the analysis indicates Monash will need to plan for 50,000 jobs (29,100 additional) that will require an additional 1,049,900 square metres of floorspace to be provided. This is a significant scale of growth which will need to be carefully managed alongside the precincts longer term potential. This results in an average workspace ratio across all land use types of 51 square metres per worker, which appropriately reflects the mix of new more intensive economic and employment activities along with the historical less intensive uses, such as industrial.

The following table summarises the results from Table 9.2 of the Technical Report as a share of the SPA total. This highlights the majority of additional employment floorspace will be Office and Education related (75 per cent combined). While there will be challenges in establishing a significantly expanded office market in the precinct, as identified in the Technical Report, the key challenge will also be around the scale and quantum of growth projected for education employment. This would see the University increasing by around 60 per cent, which would be dependent on the future plans of Monash University.

Table 2: Share of SPA employment and floorspace by land use, 2021-2041

	Total jobs % of SPA	Average WSR (GBA per worker)	Floorspace 2021, (GBA) % of SPA	Floorspace 2041, (GBA) % of SPA	Add' Floorspace 2021-2041 (GBA) % of SPA
Education	26%	65	35%	33%	31%
Health	5%	29	0%	3%	7%
Office	49%	30	21%	28%	39%
Public use	1%	40	1%	1%	1%
Retail	4%	28	3%	2%	2%
Accommodation	0%	415	2%	3%	4%
Ent / Rec	1%	98	3%	3%	2%
Industrial	13%	110	35%	27%	15%
Total	100%	51	100%	100%	100%

Source: Derived from Table 9.2 of the Economic Profile Assessment, AJM, Feb 2025

I believe the analysis appropriately translates the employment projections into relevant floorspace requirements for the SPA, to inform the SP process. The detailed assessment in the Technical Report then highlights a number of risks, challenges and opportunities in realising this outcome for the SP to consider and address. The assessment also clearly highlights that the employment projections are not fundamentally unrealistic, while they will still require some considerable shifts in existing market trends, other supportive interventions or flexibility in how some outcomes are achieved. I believe this combined analysis and market assessment should provide sufficient guidance for the SP process.

Recommendations

Section 11 of the Technical Report includes 15 Recommendations and 4 Opportunities to inform the development of the SP and draft PSA. These recommendations cover various aspects of different employment sectors including Office, Health, Education, Retail and Entertainment, Industrial and other employment. They highlight the scale and form of growth that should be planned and identify potential conflicts or barriers that should be addressed via the SP process.

In addition, the recommendations consider the preferred location for various employment uses within the SPA. There is a strong focus on the importance of the Monash Town Centre and the future of the Monash University Clayton Campus. In general, these locational recommendations are appropriate and will need to be balanced alongside other technical reports as part of the SP process.

1.5 Concluding comments of peer review

Overall, I believe, the final Technical Report's approach, findings and recommendations are an appropriate evidence base to inform the Monash SP and draft PSA.

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