

▪ Report

Monash Specialised Activity Centre - Strategic Planning Framework

Prepared for
City of Monash

By
Beca Pty Ltd

In association with Essential Economics

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Action	Name
Prepared by	Catriona MacLean, Trent Kneebrush, John Noronha
Reviewed by	Greg Pollock, John Henshall
Approved by	Greg Pollock

Executive Summary

Aim

The aim of this project is to develop a “Strategic Planning Framework” for the Monash Specialised Activity Centre (referred to as ‘the Precinct’ or the SAC throughout this report).

Melbourne 2030 has identified the land including Monash University, the Monash Medical Centre and CSIRO as one of nine Specialised Activity Centres (SAC) in metropolitan Melbourne. SACs are different from other activity centres specified in *Melbourne 2030* as they perform a specialised function with a focus on economic development as opposed to a mix of retail, commercial, and residential uses. A strategic framework is therefore necessary to provide guidance and direction for land use and development, and which meets the objectives of the SAC to enhance economic growth through its specialised role.

SWOT Analysis

A SWOT analysis, undertaken in conjunction with key Precinct stakeholders, revealed the following challenges and issues for the strategy and the SAC to address:

Strengths	Weaknesses
<p>Diversity of uses including a mix of technology-related and supporting services and businesses. Strong linkages between Monash University, CSIRO, Monash Medical Centre and the Synchrotron.</p> <p>The centre is linked to major road networks, ports and airports and is centrally located.</p> <p>Relocation of the entry to Monash University will encourage links with Synchrotron.</p> <p>Monash’s Garden City image and high amenity environment are positive aspects.</p> <p>Impressive numbers of high profile uses already exist within the Precinct including Monash Medical Centre, CSIRO, Synchrotron, Monash University and businesses within the Science, Technology, Research, and Innovation Precinct (STRIP).</p>	<p>Large geographic spread of the Precinct.</p> <p>Lack of information regarding businesses within the Precinct and lack of information on potential for business links.</p> <p>Internal road capacity for increasing truck movements is limited.</p> <p>Safe pedestrian access in and around the Precinct needs to be provided.</p> <p>Older parts of the Precinct need to improve their visual amenity.</p> <p>Businesses lack a sense of belonging to the ‘specialised’ precinct.</p> <p>Limiting planning controls that currently restrict the development of short-term accommodation to support core uses.</p>
Opportunities	Threats
<p>Council can set design guidelines for redevelopment of land that currently has inappropriate activities.</p> <p>Synchrotron will attract investment to the Precinct.</p> <p>STRIP project enhances opportunities for collaboration.</p> <p>Businesses can improve their networks for supply and markets.</p> <p>Potential development of short-term accommodation to meet needs of Precinct users, institutions and businesses.</p> <p>The creation of a shuttle bus service to link key areas of the Precinct.</p> <p>Improved streetscapes and high amenity design to attract investment.</p> <p>Improved and safe physical connections between major medical and research institutions.</p>	<p>Majority of land is privately owned, thus limiting opportunity for land use change.</p> <p>Presence of heavy industry and the need for risk management.</p> <p>Heavy reliance on private vehicles due to poor public transport service.</p> <p>Interface issues with sensitive uses at the periphery.</p> <p>Location of sensitive uses within the Precinct.</p> <p>Insufficient investment in transport infrastructure effectively means decreasing accessibility to and within the Precinct.</p> <p>Significant increases in land values, resulting in decreased competitiveness with ‘greenfield’ areas.</p> <p>Inappropriate location of business activity within the wrong zones that do not contribute to the Precinct’s objectives.</p>

Vision

A review of these issues, and an assessment of the Precinct's potential resulted in the stakeholders developing the following vision for the Precinct:

"A world class precinct which hosts a wide mix of businesses and institutional activities, collaborating to provide leadership in education, health, research and innovation in an attractive working environment which encourages and values cultural diversity"

Objectives

A set of strategic objectives were also established for land use and economic development, incorporating the key themes of the SAC, and are as follows:

Land Use and Economic Objectives
Networking
■ To maximise networking opportunities and other links for businesses, institutions and staff in the Precinct.
Promotion
■ To promote the Precinct's role as a leader in education and research & development by improving integration between Monash University, Monash Medical Centre, CSIRO, the Synchrotron and other technology uses and support businesses.
Planning Scheme Amendment
■ To prepare Planning Scheme Amendments for specific local policies, MSS review and to provide the Special Zone for the Precinct.
Design excellence
■ To promote a high level of amenity in streetscape and built form that reinforces the Precinct's significance on a local, regional, national and international scale.
■ To promote the Precinct as a premium quality urban environment which is attractive to high profile businesses and contributes to economic development through market leadership.
Mixed land use
■ To encourage a range of non-technology based commercial activities (excluding core retail and restricted retail activities) and community services consistent with the zone and its objectives, which contribute to and enhance economic development and employment opportunities in the Precinct.
Businesses attraction
■ To encourage and facilitate technology-related businesses and institutions to locate in the Precinct, while also attracting and retaining existing small and medium-sized business, especially those with a primary focus on research and technology, as well as those businesses which service the needs of other businesses/institutions in the Precinct.
■ To encourage a range of appropriate non technology-based commercial activities which enhance economic development and employment opportunities in the Precinct. Such activities include office development and modern industrial/warehouse developments but exclude core retail (supermarket, clothes shops etc) and restricted retail (bulky goods, peripheral sales etc).
■ To allow for the potential development of specialist accommodation in the Precinct.
Knowledge Sharing, Collaboration & Leadership
■ To encourage value-adding, knowledge-sharing and the commercialisation of ideas through collaboration and integration of businesses and institutions.

<ul style="list-style-type: none"> ■ To encourage further clustering of businesses within the Precinct.
<ul style="list-style-type: none"> ■ To encourage leading businesses in their fields to locate within the Precinct, especially those which provide commercial, research, medical and educational synergies.
<p>Business support</p>
<ul style="list-style-type: none"> ■ To ensure business support services that complement the specialised nature of the Precinct and conventional firms are able to locate in the Precinct.
<p>Branding & Marketing</p>
<ul style="list-style-type: none"> ■ To identify and promote a 'brand' for the Precinct which reflects the high corporate and institutional standards of public and private enterprises active in the Precinct. The brand should also incorporate components that relate to education, research & development, medical pursuits and other technology-related activities which feature in the Precinct.
<p>Visual amenity</p>
<ul style="list-style-type: none"> ■ To encourage high quality built form and streetscape throughout the Precinct so as to ensure a quality environment for activities pursued in the Precinct. This is regarded as a critical component in attracting new business investment to the Precinct.
<p>Access & Integration</p>
<ul style="list-style-type: none"> ■ To provide efficient and safe road and pedestrian access for Precinct businesses, institutions, staff and visitors.
<ul style="list-style-type: none"> ■ To improve existing public transport access, links and infrastructure to and from the Precinct.
<ul style="list-style-type: none"> ■ To improve internal road, bicycle and pedestrian networks so as to provide improved capacity for the movement of goods, services and people.

Key actions

Based on these objectives and the Precinct vision, a strategy has been developed which identifies in excess of 50 key actions that are required to facilitate the successful long-term development of Monash SAC as one of Australia's premier technology precincts.

Of the identified actions, highest priority ones involve:

- establishing a management structure to guide the further development and promotion of the Precinct;
- creating further economic development opportunities;
- ensuring design excellence throughout the Precinct consistent with the Garden City image;
- revitalising long-established areas;
- improving public transport services; and
- promoting the Precinct as a prime location for technology related and other commercial activities for public and private sector enterprises.

Implementation

Achievement of these key actions will require changes to the Monash Planning Scheme and funding commitments from private and public stakeholders in the implementation phase.

To ensure the ongoing success of Monash SAC, a strong partnership between the private education, health and government sectors is required. The development of the strategy is the start of this process, with all parties having being involved in some form during the study. The challenge now is to continue working in partnership to implement the strategy, and its underlying aim of improving the economic function of the Precinct.

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1 Introduction

1.1 Aim

The aim of this project is to develop a “Strategic Planning Framework” for the Monash University / Health Research Precinct Specialised Activity Centre (referred to as ‘Monash SAC’ or ‘the Precinct’ throughout this report).

Melbourne 2030, the State Government’s growth strategy for Melbourne, identifies Monash SAC as one of nine specialised precincts in Metropolitan Melbourne. Monash SAC comprises three main precincts: Monash University, Monash Medical Centre and Monash Technology Precinct, along with adjacent areas within the sphere of influence of the main precincts, including Commonwealth land and public open space.





This report will provide strategic recommendations to guide future development and re-development within the Precinct. The strategy also recommends that an appropriate name or ‘brand’ for the Precinct be decided upon by Council, the private sector and key organisations within the Precinct, which reflects its vision, uniqueness and the broad mix of activities undertaken within its boundaries.

The outcome of the project will be the development of a Strategic Planning Framework, based on the long-term vision for the Precinct, underpinned by key economic and land use/urban design objectives. The Framework will provide a platform from which to further promote economic development and improve land use and urban design outcomes for the Precinct, and this will be achieved by identifying key development opportunities and the actions, responsibilities and implementation processes required to achieve those opportunities.

The project has been commissioned by the City of Monash, working in partnership with the Department of Industry and Regional Development, the Department Sustainability and Environment, and key stakeholders in the Precinct.

1.2 Methodology

The table below outlines the components for each of the five stages of the study:

<p style="text-align: center;">Stage 1: Preparing to Plan</p> 	<ul style="list-style-type: none"> ✓ Project 'Kick-Off' Workshop, team introduction, agreement on key dates and program, Inception Report ✓ Policy context ✓ Land use audit ✓ SWOT analysis ✓ Preliminary review of economic development issues ✓ Background Conditions Report
<p style="text-align: center;">Stage 2: Stakeholder Workshop No. 1</p> 	<ul style="list-style-type: none"> ✓ Targeted consultation ✓ Identification of landowner intentions ✓ Vision and objectives ✓ Broad goals for the center ✓ Summary Report
<p style="text-align: center;">Stage 3: A Strategy for Change</p> 	<ul style="list-style-type: none"> ✓ Land use strategy ✓ Design workshop with Council ✓ Three broad land use concept plan options based on vision and objectives statement ✓ A preferred and developed land use concept plan ✓ Economic Development Strategy framework ✓ Development of Strategic Planning Framework
<p style="text-align: center;">Stage 4: Stakeholder Workshop No. 2</p> 	<ul style="list-style-type: none"> ✓ Evaluation and testing of combined economic development and land use options ✓ Summary report
<p style="text-align: center;">Stage 5: Draft and Final Strategy</p>	<ul style="list-style-type: none"> ✓ Final Strategy, including recommendations, action plans, keeping strategy current and success factors ✓ Summary document ✓ Council presentation

1.3 Consultation

Effective consultation with stakeholders is fundamental to the project's success. To gain a comprehensive understanding of the issues involved from a business and institutional perspective, two stakeholder workshops and one Council workshop were undertaken as part of the study. Additionally, a series of individual consultation sessions were held with precinct businesses and organisations. The following outlines the consultation themes:

- Stakeholder Workshop 1 - Strengths, weaknesses, opportunities and threats
- Individual stakeholder interviews - Business issues and future opportunities
- Council Design Workshop - Planning and urban design considerations
- Stakeholder Workshop 2 - Vision, objectives, actions and implementation

Throughout the project regular progress meetings were held with the project steering committee, and this consisted of representatives from:

- Monash City Council
- Department of Sustainability and Environment
- Department of Industry Innovation and Regional Development
- Monash University
- Monash Medical Centre
- Beca Pty Ltd
- Essential Economics Pty Ltd

Full details of steering committee members can be found in *Appendix 1*.

1.4 Definitions

"Study Area"

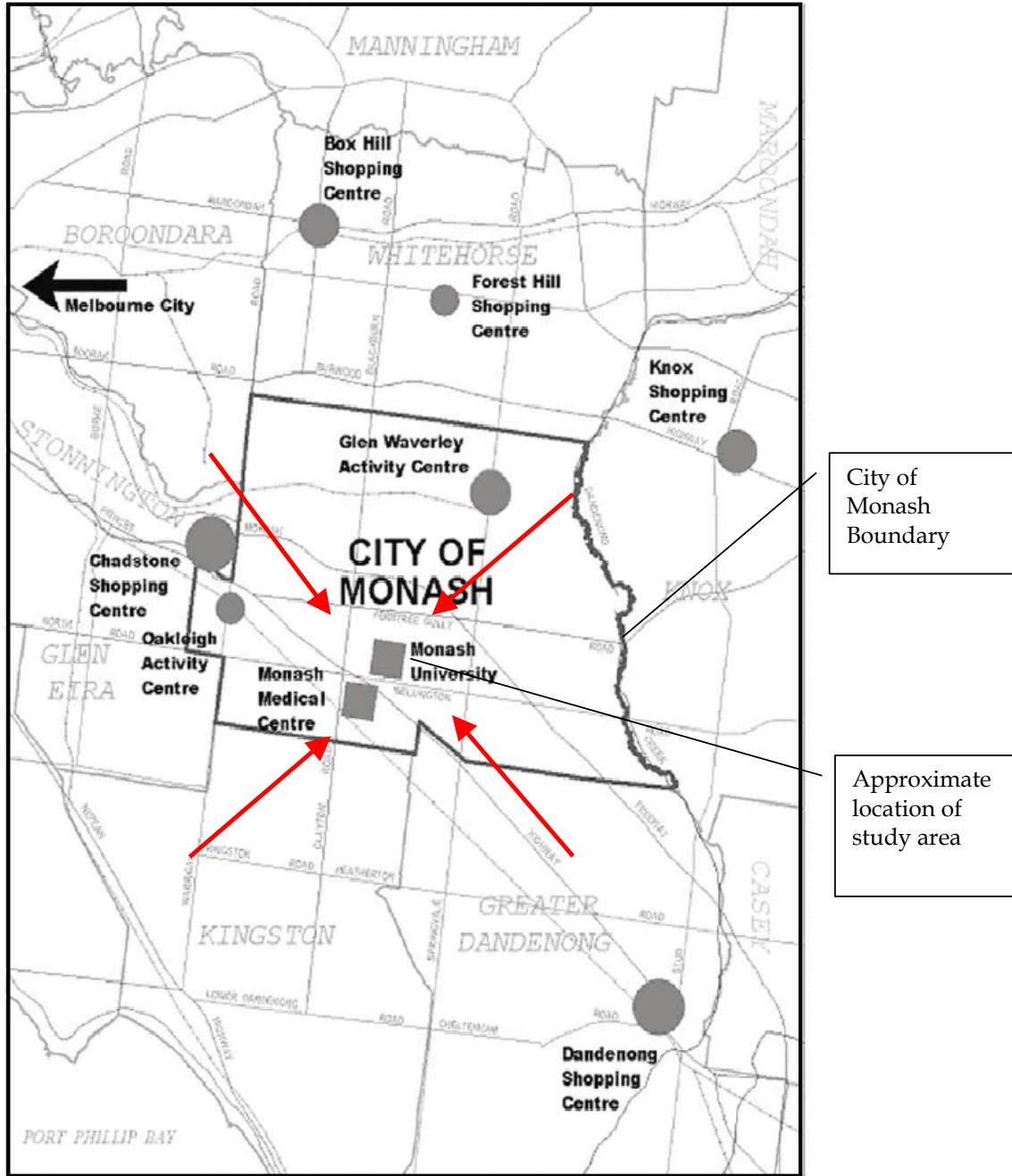
The Monash Specialised Activity Centre comprises three key precincts:

- Monash University
- Monash Medical Centre
- Monash Technology Precinct (including the Synchrotron site)

Also included in the SAC is Commonwealth land (containing CSIRO) and areas of public open space, as well as areas adjacent to the main components.

The following map identifies the general location of Monash SAC within the broader municipality and highlights each of these key precincts.

Map 1: General Location of the Monash SAC Precinct within the City of Monash



City of Monash Boundary

Approximate location of study area

N

0 2 4 Kilometers

CITY OF MONASH

MAP 1

Based on plan prepared by Monash Planning Services
April 2000 GIS

“Technology”

The focus of the Monash Precinct has to date been placed on encouraging “technology” related uses. The term technology is difficult to define - key dictionary descriptors include such terms as: knowledge, skill, expertise, know-how, equipment, machinery, tools etc.

For the purposes of this strategy, the following broad definition is considered appropriate:

Any practical application and value added use of the applied sciences in business or industry that contributes to economic development through research and development, innovation and commercialisation.

1.5 This Report

This report is structured as follows:

1. Specialised Activity Centre Guidelines and Principles
2. Profile of Monash Specialised Activity Centre
3. Issues to Address
4. Vision and Objectives
5. Land Use & Economic Development Strategies
6. Implementation Strategy
7. Conclusions and Recommendations

2 Specialised Activity Centre Guidelines and Principles

2.1 Introduction

This Section outlines the key Federal, State and Local Government policy settings relevant to this study, and includes a summary of guiding principles, which will form the basis of the strategic framework.

2.2 Melbourne 2030 and SACs

Melbourne 2030 - Planning for sustainable growth is the State Government's strategy for guiding Melbourne's growth and development until the year 2030. As Melbourne's population is expected to grow by up to 1 million people by 2030, planning for the increase in population is vital to ensure sufficient land supply for housing, infrastructure and appropriate facilities for business, community, education and health.

One of the key directions of Melbourne 2030 is to create 'A more compact city' (Direction 1), which incorporates sustainable transport options with increased amenity and liveability. Policy 1.1 concentrates on building up activity centres that already support a large catchment and are located on or near the Principal Public Transport Network. These activity centres are graded by size, from the Central Activities District in the Melbourne Central Business District, Principal Activity Centres, Major Activity Centres, Specialised Activity Centres and Neighbourhood Activity Centres. The role of centres is described in greater detail in Section 2 in relation to the economic profile of Monash.

The key elements of Specialised Activity Centres as defined by *Melbourne 2030* are as follows:

- They provide a mix of economic activities that generate high numbers of work and visitor trips;
- They require similar transport management responses to other types of large centres;
- Their planning and development should reinforce their specialised economic function;
- They should only contain uses that support and are consistent with continued growth in their primary function;
- Mixed uses that complement the role of the centre are encouraged, but they should not compete with nearby Principal or Major Activity Centres;
- Mixed uses which serve a wider catchment and might inhibit the specialised role of the centre should not be encouraged;
- They must be located on the principal public transport network;
- Future planning and development should emphasise the ability of SACs to foster interaction between researchers and industry; and

- Space is required so that new and emerging applications of economic activities that generate a high number of workers and visitors can benefit from co-location.

This project focuses on the Monash University / Health Research Precinct Specialised Activity Centre (and referred to in this report as 'Monash SAC' or 'the Precinct').

The ultimate aim of planning for future research precincts, and in this case of Monash SAC, is to encourage the interaction between industry and research by co-locating developments in productive clusters. Monash University, CSIRO, Medical Centre and proposed Synchrotron all provide a solid platform for this aim.

Other relevant directions in *Melbourne 2030* include Direction 4 'A more prosperous City'. This recognises four economic foundations that contribute to jobs growth and a strong and innovative economy. These comprise being competitive, innovative, connected and maintaining amenity and quality of life.

Policy 4.4 in particular focuses on creating opportunities for innovation and the knowledge economy within existing and emerging industries, research and education, which supports the project's objectives. Policy 8.5 from Direction 8 "Better Transport Links" aims to do just that, namely better manage the road system to achieve integration, choice and balance by developing an efficient and safe network while making the most of the existing network.

2.3 Council Planning Controls

A number of Monash City Council planning controls operate within the Precinct to guide land use and development. These controls need to be addressed in order to achieve the desired outcome for the centre including a flexible approach to uses to gain maximum advantage for economic development while retaining the 'Garden city' image.

2.3.1 Business 3 Zone

Purpose:

To encourage the integrated development of offices and manufacturing industries and associated commercial and industrial uses.

This zone applies to the majority of the core uses within the Precinct and poses a potential constraint to development of land for supporting uses as it restricts the development of residential or short-term accommodation uses. Yet, such uses are likely to support the primary uses of the centre including Monash University, Medical Centre, CSIRO and the Synchrotron. The challenge for the future is to ensure the balance between allowing such supporting uses without detracting from the primary economic and employment purposes of the Precinct.

2.3.2 Industrial 1 Zone

Purpose:

To provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.

Uses that operate within the Industrial 1 Zone in the study area are located on the periphery of the Precinct and generally contain older-style industrial activities. Although the uses contained within this zone are not directly related to the primary function of the Precinct (namely, research and technology), they nevertheless provide a supportive role to the inner core of the Precinct and contribute to economic development.

2.3.3 Public Use Zone

Purpose:

To recognise public land for public utility and community services and facilities. To provide for associated uses that are consistent with the intent of the public land reservation or purpose.

The Monash Medical Centre and Monash University are located within this zone, which recognises their broader role in the community.

Other controls that guide the Precinct involve local policies such as the Technology Precinct Policy and the Industry, Business Character Development Policy, as described below.

2.3.4 The Monash Technology Precinct Policy - Clause 22.02

The Monash Technology Precinct is recognised in Council's Municipal Strategic Statement (MSS) as one of the most important precincts in Australia, and containing some of the most prestigious research organisations and high technology industries.

The policy objectives aim to encourage further development of sustainable industry that complements existing uses within the municipality, and balances the existing needs of industry with the demands of high technology land uses.

Policy statements include:

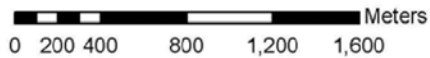
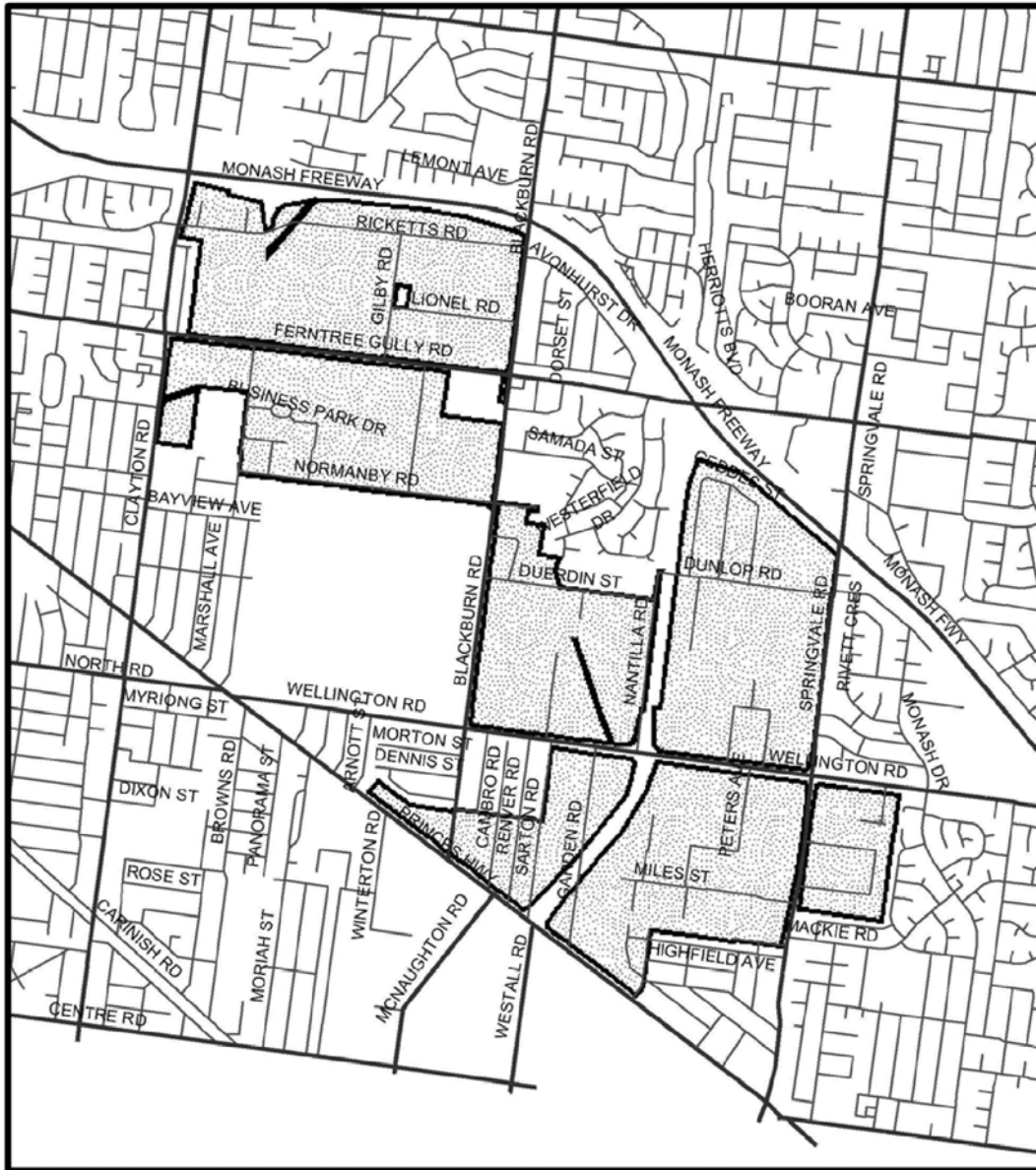
- making maximum uses of major elements of research infrastructure in the Monash Technology Precinct surrounding Monash University;
- ensuring the Precinct is promoted as a primary focus for technology and research and development enterprises;
- locating appropriate facilities, services and a mix of uses to support or relate to technology; and
- research and development enterprises and ensuring development is in accordance with the principle of ecologically sustainable development.

The area identified as the Monash Technology Precinct has been zoned as Business 3 Zone under the State Planning Policy Framework standard zones. One of the key constraints of this zone is the prohibition on accommodation as a use. Council reports a number of approaches from the development community to provide accommodation in the area to support either the University with student accommodation or business with short-stay motel/hotel accommodation. Under the present zone provisions these cannot be allowed.

The concept of the Specialised Activity Centre differs from the Technology Precinct in that it will encourage the development of appropriate high profile commercial activities as well as technology uses and educational or research activities. It will expand the boundaries of the Technology Precinct, to include the Monash University and Medical Centre as well as the CSIRO and the Synchrotron. The prime focus of a SAC is to encourage economic development through a specialised function of economic activity, in this case, through technology and complimentary high profile commercial and educational activities.

Map 2 identifies the area referred to in the Planning Scheme as the “Monash Technology Precinct” which is now included as one of the largest ‘components’ of the Monash Specialised Activity Centre.

Map 2: Monash Technology Precinct



Legend

 Monash Technology Precinct



Prepared by Monash Planning Services using GIS.
Base data supplied under licence from Land Victoria.
February 2003

MAP TO CLAUSE 22.02

2.3.5 Industry and Business Development and Character Policy – Clause 22.03

This policy applies to land located within the Industrial 1 Zone or a Business 2, 3 or 4 Zone. The aim of this policy is to retain the Garden City image by providing guidelines for the successful integration of new developments with existing infrastructure based on building design, setback, access and landscaping. Recognition is given to the existing amenity of the industrial and office uses within the Precinct, and the need to maintain and improve amenity through new development.

Key statements of this policy include the following:

- The Garden City Character be maintained and enhanced by providing space in setback areas for appropriate landscaping, including the planting of semi-mature canopy trees with spreading crowns.
- Development complements and does not visually overwhelm surrounding buildings, roads or spaces in terms of building scale, height and bulk.
- Sufficient on-site car parking, designed for safe and efficient vehicle movement, which does not visually impinge on front setbacks or detract from the Garden City Character be provided.

2.3.6 Policy Context

Innovation is a key component of the Australian economy and, consequently, Monash SAC is supported by a number of government initiatives and policies spanning all tiers of Government.

The Federal initiative “Backing Australia’s Ability” encourages the development of science and innovation through developing, retaining and “commercialising ideas”.

At a State level, “Growing Victoria Together”, the Victorian Government Innovation Statement, the State Planning Policy Framework and *Melbourne 2030*, all support the development of a ‘Specialised Activity Centre’ to focus growth of the economy by encouraging technology uses within a precinct to enhance knowledge sharing and communication between businesses, research and educational institutions.

The *Regional Economic Strategy for Melbourne’s South East 2003-2030* provides direction for the region to “guide policy development, land use management and strategic planning decision making focused to deliver sustainable prosperity and liveability to the Region”.

At a local level, “*Monash 2012 – A Strategy for the Future*”, the Council Plan 2004-2008, the Economic Development Strategy 2003- 2007, all contribute to the concept of focusing on developing business opportunities and a “high tech” image.

The Local Planning Policy Framework recognises the importance of economic development through Clause 21.05 and the importance of encouraging industry (Clause 21.07), while there are also specific policies relating to the Monash Technology Precinct (Clause 22.02) and an ‘Industry and Business Development Character Policy’ (Clause 22.03).

2.4 Conclusion

There are a number of policies which support good planning and development in the area identified as the Monash SAC. While there are important State policies, including the *Melbourne 2030* strategy, it is also important to recognise that the City of Monash has for some time promoted policies that recognise the technology and business orientation of the Precinct, including the promotion of good planning to achieve positive outcomes for amenity and economic development.

3 Profile of Monash Specialised Activity Centre

3.1 Introduction

This Section describes the key characteristics of the Precinct in terms of its:

- the land use context, and
- the economic context.

Consideration is given to the Precinct's current land uses and activities, the demographic characteristics of the catchment population, an employment analysis, identification of the Precinct's comparative advantages, and an assessment of commercial property supply and demand. This contextual material provides the basis for subsequent preparation of the Strategic Planning Framework for the Monash SAC.

3.2 Land Use Context

An audit of land use in the Precinct was undertaken and the following observations are relevant:

- There is a wide range of land uses in the Monash SAC, ranging from institutional and government activities to education, medical, manufacturing and personal services.
- Major institutional/government uses include Monash University, Medical Centre, CSIRO, Synchrotron, and the Telstra Research Lab.
- Uses in the Precinct range from traditional industrial activities (both small and large scale forms) to modern industrial/commercial/office activities (often in a business park setting).
- There are a high proportion of office uses, even in areas where industry is a major land use.
- A limited number of sites with development potential exist, including areas where large-scale, traditional industries exist (approx 20ha, see Appendix 3).
- Several vacant parcels of land exist, but development intentions are unknown as the land is privately owned (see Map 4).
- There is no residential development in the Precinct, although there are residential interface issues associated with several localities around the periphery of the Precinct.
- A significant proportion of recent development comprises small scale office/commercial uses (e.g. business parks).
- Monash Medical Centre is physically detached from the other parts of the Precinct.
- Amenity is generally relatively high in the study area compared typical business and commercial areas, particularly in the areas zoned Business 3 and where recent development has occurred.

For ease of analysis in the land use audit, the Precinct was split into 15 distinct zones (see Map 3 below), with each zone characterised by the type of activities undertaken.

Within these areas the land use audit also identified a range of traditional industrial uses, as well as areas containing new office and business park developments, including many high-tech companies.

Map 3: Land Use Audit

3.3 Economic Context

This Section describes the Monash SAC's economic context, including population, socio-economic profile, locational advantages, employment, and a commercial floorspace assessment.

3.3.1 Population

The Monash SAC is located generally central to the surrounding City of Monash municipal boundaries. In 2004, the municipality was home to 163,100 residents and by 2021 this population is forecast to reach an estimated 176,600 people. This represents a net increase of approximately 13,500 people at an average rate of growth of 0.4% pa. These figures are based on estimates provided by the Australian Bureau of Statistics (ABS) and forecasts prepared by the Department of Sustainability and Environment (DSE).

3.3.2 Demographic Profile

The Monash municipality has the following demographic and socio-economic characteristics according to the ABS Population and Housing Census 2001:

- Monash has a relatively older population with approximately 33% aged 50 years or more (compared with the metropolitan average of 28%). A further 20% of the Monash population are 0-18 years old (metropolitan Melbourne 24%), while the remaining 47% are between 18-50 years old (metropolitan Melbourne 48%).
- Monash is a highly educated municipality, with 28% of residents having a bachelor degree or higher or a diploma or advanced diploma (metropolitan Melbourne 23%).
- 44% of Monash residents are employed as managers, administrators and professionals (metropolitan Melbourne 40%).
- 36% of all Monash residents were born overseas (metropolitan Melbourne 29%).
- Approximately 75% of dwellings are owned or being purchased (metropolitan Melbourne 70%).
- 84% of dwellings in Monash are defined as separate houses (metropolitan Melbourne 74%, while the proportion of flats and apartments in Monash is lower).
- 36% of households have a weekly household income in 2001 dollars above \$1,500 (metropolitan Melbourne 33%).

This profile indicates that Monash enjoys a relatively high level of socio-economic status compared with the metropolitan average, particularly in terms of education, income and home ownership levels. It is also a multicultural community. All of these features indicate that Monash has underlying strengths that should assist in fostering further development associated with the technology and related activities focused on the SAC.

3.3.3 Comparative Advantages

Monash has a number of major comparative advantages including location, transport links, quality infrastructure, availability of a high skilled labour, cluster of high tech businesses and the presence of major educational, medical and research organisations. Listed below is a summary of the main comparative strengths and advantages outlined in the 2003-07 Monash Economic Development Strategy:

- Close proximity to Melbourne's CBD via the Monash Freeway;
- Gateway to the rapidly expanding south-eastern growth corridor;
- Excellent links to major roads and freeways, and these links will be further enhanced by construction of the Mitcham and Frankston freeways;
- Excellent links to Melbourne International Airport and the Port of Melbourne via Monash Freeway, City Link and the Tullamarine Freeway;
- Well-established and maintained infrastructure which includes: 88 sporting fields and pavilions supporting 130 clubs, 29 preschools, 13 maternal and child health centres, 15 community halls, 5 library branches, 3 aged accommodation facilities and 3 aquatic and recreation centres;
- Strong corporate identity in the metropolitan business and education communities;
- Presence of Monash University;
- Presence of Monash Medical Centre;
- Presence of Monash Technology Precinct and its links to Monash University, Monash Medical Centre and Prince Henry's Institute of Medical Research;
- High concentration of technology-based companies;
- Excellent range of educational facilities including public and private institutes, colleges and schools;
- High level of international students in tertiary education and secondary schools;
- Location of Head Offices of many national and international firms;
- Major employment hub for labour force from newly-developing suburbs in Melbourne's south east;
- Entertainment centre of Melbourne's south east;
- Diverse network of shopping and office precincts;
- Highly skilled, educated and flexible resident workforce; and
- Potential vacant land available to accommodate major new industrial and residential development over the next five years.

3.3.4 Employment

There are an estimated 11,500 businesses in Monash, with total employment of approximately 90,000 people according to the 2003-07 Monash Economic Development Strategy.

Monash is a major employment node in the region and employs significant numbers of its own residents (approximately 33% of Monash residents work in the municipality) as well as generating employment for many people living in surrounding municipalities, which include Casey, Knox, Greater Dandenong, Whitehorse and Kingston.

Research undertaken in this project indicates that approximately 40,000 people are employed by businesses / organisations within the Monash SAC. This represents nearly 45% of all municipal employment and highlights the importance of the Precinct as an employment generator for the region.

3.3.5 Activities in Monash SAC

As indicated earlier in this report, the Monash SAC comprises three key precincts, and the activities of each are described below:

(a) Monash University

Monash University's Clayton campus is the largest of its eight campuses. A diverse range of programs are offered on campus and include Art, Business & Economics, Education, Engineering, Information Technology, Law, Medicine and Science. The university has a strong record of achievement in fostering collaborative research projects.

According to Monash University statistics the Clayton campus has nearly 23,000 students enrolled as of March 2004, of which approximately 1,900 are off-campus enrolments. A total of 19% of all enrolments are international students.

As of March 2003, the campus employs approximately 3,600 staff, including over 1,700 academic staff.

The campus incorporates a wide range of facilities, and these include the following:

- Accommodation: over 1,000 students and staff are accommodated in halls of residence, flats and apartments;
- Sports: Gymnasium, sports clubs, swimming pools;
- Business: Catering and video conferencing;
- Exhibition and events: Alexander Theatre, Monash University Museum of Art, Monash cinema, Science Centre and weekly markets;
- Community services: Child care, health services, religious services, short courses;
- Retail: Banks, bookshops, cafes, shops; and
- Libraries: 3 main libraries.

(b) Science, Technology, Research and Innovation Precinct (STRIP)

The Science, Technology, Research and Innovation Precinct (STRIP) is the major long-term collaborative initiative underway in the Precinct. This \$400 million Monash University project aims to enable business, industry and the community to access research, technology and education skills and to share expertise from business and industry. The purpose of STRIP is to allow research to develop seamlessly through the stages of commercial development to advanced manufacturing and marketing.

The STRIP project will evolve in three stages. The first building is now complete and is in the process of being tenanted, with the second and third buildings currently being developed and expected to be operational by 2008. Tenants of the first STRIP building are a mix of private research-related businesses and University departments and include the following:

- CRC for Functional Communication Surfaces (CRC Smartprint);
- National Printing Laboratory;
- Nanoviv – Nanotechnology Victoria;
- National Stem Cell Centre;
- South African Technology Centre;
- Stem Cell Sciences Pty Limited;
- Centre for Green Chemistry;
- Centre for Health Economics;
- Computer Science & Software Engineering;
- Micromon;
- Monash Immunology & Stem Cell Laboratories;
- Victorian Bioinformatics Consortium; and
- Victorian Institute of Chemical Sciences.

(c) Monash Medical Centre

Monash Medical Centre is one of Victoria's major teaching and referral hospitals. It is the largest medical centre in the Southern Health network, providing specialist care to the State's southeast. The Centre focuses primarily on medical services requiring complex and multi-disciplinary activity. The Centre also provides under-graduate and graduate training to medical students, nurses, allied health professionals and other hospital related carers. Monash Medical Centre is a significant centre for research and there are eight Monash University departments based at the centre. It also has strong links to Prince Henry's Institute of Medical Research, the Institute of Reproduction and Development, and the Monash Institute of Health Services Research.

An estimated 5,000 people are employed by the Medical Centre.

(d) Monash Technology Precinct

Monash Technology Precinct consists of a number of specific zones as outlined in the Land Use Audit. At least 1,500 businesses operate in the Technology Precinct, employing in excess of 30,000 people. As the Land Use Audit indicates, these businesses are a mix of small, medium and large enterprises and include a wide range of uses as outlined below:

- Manufacturing
- Wholesaling
- Health / medical services
- Education services
- Research
- Technology
- Corporate/ business services
- Engineering
- Construction / property / building
- Communications
- Computer related (software and hardware)
- Service retail (café, milk bar, takeaway)
- Restricted retail (bulky good, peripheral sales)
- Printing
- Electrical services
- Motor repairs and supplies
- Transport and logistics
- Warehousing / storage
- Café/restaurant/catering

3.3.6 Commercial Floorspace Supply and Demand Assessment

(a) Vacancies

Data from real estate agents indicates there are a number of major premises, which are currently vacant and available for lease or sale in the Precinct. In total, at least 61,000sqm of commercial floorspace is vacant and available to the market. These premises typically involve:

- Industrial/warehouse activity; and
- Office/commercial activity.

Most of the vacancies are primarily in the industrial/warehouse market where there is at least 47,000sqm of floorspace available. By comparison, office vacancies are lower, with

only around 14,000sqm available. In addition, Brandon Business Park - which is located just outside the Technology Precinct - has approximately 8,350sqm of office space currently available for lease.

(b) Current and Planned Future Developments

There are a number of major developments - which are either under construction, or just completed, or planned for the coming few years - which are currently being marketed for sale or lease. Total floorspace involved is approximately 105,000sqm, and these developments focus mainly on office/commercial market with over 80,000sqm identified to come on line over the next few years. Of this total, 50,000sqm is allocated to the Axxess Corporate Park, which has current plans to develop 4,200sqm, but will be reliant of continuing future demand to ensure full take-up. In addition, over 25,000sqm of industrial/warehouse is also forecast to be completed over the coming years. These figures are based on a combination of new major developments (where full details are known) and an estimate of numerous smaller developments (where full details are unknown). In addition, there are a number of other developments, which are being constructed according to plan (such as the Toyota Design Technical Centre), which are not included in these figures.

(c) Recent Planning Approvals

A review of Monash City Council major planning approvals over the past 12 months reveals that a number of proposals for office and office/warehouse developments have been granted, with total floorspace in excess of 42,000sqm. In addition, planning approval has been granted for a significant office / warehouse development (12,000sqm) at 1894-1922 Dandenong Road (zone 15), which falls just outside the study area.

3.4 Conclusion

The following observations are drawn from this overview of the Precinct's economy:

- There is steady population growth forecast in Monash over the coming years (an estimated net increase of 13,500 residents between 2004 and 2021). Many of these new residents will require jobs (an estimated 6,000 or so at a participation rate of approximately 45%), so employment generation will be an important on-going task.
- Monash SAC is an activity centre of state significance given the presence of Monash University, Monash Technology Precinct, Monash Medical Centre and the soon-to-be completed Synchrotron project.
- Other comparative advantages for the Precinct include its (generally) attractive corporate environment and landscaped settings, its central location and transport links, and the availability of a skilled labour force.
- There is a broad mix of activities undertaken in the Precinct, some of which are technology-related, including technology-based manufacturing.
- Monash SAC is one of the major metropolitan employment nodes and it currently employs an estimated 40,000 people and is home to over 1,500 businesses.

- There is nearly 150,000sqm of floorspace currently being developed or planned for development over the next few years, of which approximately 75% will be for office/commercial uses and 25% industrial/warehouse uses. The relatively low number of planned industrial/warehouse developments (along with a large level of current floorspace vacancies) may reflect a steady decline in the manufacturing base of the Precinct.
- Important linkages exist between key educational, health and research stakeholders (e.g., the recent Science, Technology, Research and Innovation Precinct project undertaken by Monash University), and with potential for further clustering which will help maximise economic development.

Considering these key points, it is evident that the Monash precinct is well placed to build on the opportunities to further expand the range of technology and related activities in the Monash SAC. In addition to the 'technology' theme, the Precinct will also continue to be an important location for a range of other commercial and industrial pursuits, all of which contribute to investment and jobs and assist in the economic development of this important precinct. These businesses and ventures are critical to the success of the Precinct.

4 Issues To Address

4.1 Introduction

This Section outlines the major issues, which need to be addressed in the development of the overall strategy for the Monash SAC. These issues have been identified through site visits, policy review, background research and stakeholder consultation.

4.2 Strengths Weaknesses Opportunities and Threats

The following SWOT analysis provides an overview of the key factors influencing the strategy and a checklist for the strategic directions to guide land use and economic development within the Precinct. The analysis will also be of assistance when defining specific actions to implement development opportunities that best meet the economic development goals and vision for the Precinct and in working towards overcoming the identified threats and weaknesses.

An important factor to recognise is that the Precinct contains many businesses that are not associated with technology, yet they provide important services to the surrounding businesses and households, and generate many jobs and incomes.

Thus, while efforts can be made to generate further technology-related activities in the Precinct, it will also be important to ensure that other businesses can locate and thrive here.

In terms of the technology role and focus of the Precinct, an important issue is to provide a 'branding' for these important activities and to ensure that the Precinct is marketed as the premiere technology precinct in Australia. The Precinct certainly contains a number of prestigious technology businesses and institutions across the board, including learning, R&D, and commercialisation of technology.

Other important issues that need to be addressed relate to poor transport services, difficult road access, low quality streetscape in some cases, and a need to ensure new buildings adhere to design and landscape requirements.

It is important to emphasise that issues associated with roads, public transport services, streetscape, building design and the like, are very important considerations in attracting new and expanded levels of investment to the Precinct. Moreover, these particular issues relate to staff concerns (e.g. public transport services) and property development (e.g. building design and landscape), and in this regard developers and end users of sites in the Precinct will want to ensure that such issues are suitably addressed in the Framework Plan presently being prepared as part of this project.

Table 1: SWOT Analysis of Monash SAC

Strengths	Weaknesses
<p>Diversity of uses including a mix of technology-related and supporting services and businesses. Strong linkages between Monash University, CSIRO, Monash Medical Centre and the Synchrotron.</p> <p>The centre is linked to major road networks, ports and airports and is centrally located. Relocation of the entry to Monash University will encourage links with Synchrotron.</p> <p>Monash's Garden City image and high amenity environment are positive aspects.</p> <p>Impressive numbers of high profile uses already exist within the Precinct including Monash Medical Centre, CSIRO, Synchrotron, Monash University and businesses within the STRIP</p>	<p>Large geographic spread of the Precinct.</p> <p>Lack of information regarding businesses within the Precinct and lack of information on potential for business links.</p> <p>Internal road capacity for increasing truck movements is limited.</p> <p>Safe pedestrian access in and around the Precinct needs to be provided.</p> <p>Older parts of the Precinct need to improve their visual amenity.</p> <p>Businesses lack a sense of belonging to the 'specialised' precinct.</p> <p>Limiting planning controls that currently restrict the development of short-term accommodation to support core uses.</p>
Opportunities	Threats
<p>Council can set design guidelines for redevelopment of land that currently has inappropriate activities.</p> <p>Synchrotron will attract investment.</p> <p>STRIP project enhances opportunities for collaboration.</p> <p>Businesses can improve their networks for supply and markets.</p> <p>Potential development of short-term accommodation to meet needs of Precinct users, institutions and businesses.</p> <p>The creation of a shuttle bus service to link the Precinct.</p> <p>Improved streetscapes and high amenity design to attract investment.</p> <p>Improved and safe physical connections between major medical and research institutions.</p>	<p>Majority of land is privately owned, thus limiting opportunity for land use change.</p> <p>Presence of heavy industry and the need for risk management.</p> <p>Heavy reliance on private vehicles due to poor public transport service.</p> <p>Interface issues with sensitive uses at the periphery.</p> <p>Location of sensitive uses within the Precinct.</p> <p>Insufficient investment in transport infrastructure effectively means decreasing accessibility to and within the Precinct.</p> <p>Significant increases in land values, resulting in decreased competitiveness with 'greenfield' areas.</p> <p>Inappropriate location of business activity within the wrong zones that do not contribute to the Precinct's objectives.</p>

4.3 Economic Development and Land Use Issues

4.3.1 Business Expansion and Investment

While Melbourne 2030 indicates that 'Specialised Activity Centres' should contain activities that are consistent with or complement their primary function (in this case technology and research), the metropolitan strategy also recognises that other mixed uses are possible provided that they do not detract from the specialised role of the centre.

Based on the land use audit and observation of the numbers of enterprises in the Monash SAC, it is evident that the Precinct has a relatively low number of businesses and organisations that are directly involved in technology and related activities. The precise proportion of these types of activities is difficult to ascertain in view of the size of the Precinct, the large number of small businesses present, and the complexity of some operations (for example, many activities classified as 'manufacturing' may in fact make significant use of technology). It is estimated that no more than 20% of all activities would fall into the 'technology' category.

There are many businesses located in the Precinct which, while not technology-related, do provide complementary services to technology-related businesses. These services include printing, office supplies, financial services, catering, car servicing, etc. Many of these businesses are small to medium in size, as identified in the land use audit.

It is unlikely that restricting precinct activities to primarily technology-related uses would be feasible or advisable in terms of maximising the economic development potential of the Precinct. Technology Precincts, which have taken this approach in the past, have rarely succeeded as they have tended to generate insufficient activity or they have failed to attract adequate investment to make the Precinct viable. It is therefore important that appropriate non technology-related commercial opportunities (e.g. major office development, service businesses, etc) are encouraged so as to contribute to the economic vibrancy and commercial viability of the Precinct through their contributions to further economic activity, value-adding, employment and improved service levels.

Undoubtedly, there are some businesses, which would appear not to fit within the Precinct in a direct or supporting role. In general, their presence is a product of historical development patterns. The types of operations that fall into this category include heavy industry, timber storage, etc. More recently, some limited 'retail' related activities such as bulky goods, peripheral sales, warehousing sales etc have become established in the Precinct. These types of activities should also be considered inappropriate in a land use context and be discouraged. Examples are provided in the Land Use Issues section below.

As most land in the Precinct is privately owned, the ability to influence economic activity through major land use change is limited. Thus, the continuing availability of suitable land for development and re-development is a key long-term economic challenge for the Precinct. Over time, some parcels of land, which are currently used for inappropriate activities relative to SAC status, will be come available for re-development. This situation

provides Council with the opportunity to set guidelines in the Monash Planning Scheme to ensure that (subject to land suitability and other relevant requirements) such land is prioritised for technology uses or commercial activities, which facilitate economic development and employment.

The impact of the Synchrotron project also needs to be considered. Consultation with Synchrotron stakeholders indicates that over time a number of small to medium enterprises (e.g. suppliers, users etc) may wish to locate in and around the Synchrotron site, therefore the strategy should recognise that some land may be required to accommodate such businesses.

The attraction of overseas investment and businesses should be actively encouraged. This will be assisted through branding, marketing, and urban design excellence, all of which would assist in creating a strong profile for the Precinct and enhance its reputation and investment potential.

4.3.2 Business and Institutional Collaboration

The major existing collaboration between enterprises involves linkages between Monash University, CSIRO, Monash Medical Centre, and (in future) the Australian Synchrotron. These organisations also have linkages with smaller businesses operating in the Precinct.

The Science, Technology, Research and Innovation Precinct (STRIP) are the major long-term collaborative initiative underway in the Precinct. This \$400 million Monash University project aims to enable business, industry and the community to access research, technology and education skills and to share expertise from business and industry. The purpose of STRIP is to allow research to develop seamlessly through the stages of commercial development to advanced manufacturing and marketing.

The STRIP project will evolve in three stages. The first building is now complete and is in the process of being tenanted, with the second and third buildings currently being developed and expected to be operational by 2008. Tenants of the first STRIP building are a mix of private research-related businesses and University departments.

Given the significant investment already channelled into the STRIP project and its future expansion plans and strong linkages with the Synchrotron project, this initiative should be seen as the main opportunity for the Precinct in terms of collaboration in education, research and the commercial sector. Ultimately, however, a range of market-driven decisions will influence whether local and non-local businesses re-locate to STRIP. These decisions may revolve around rental levels, collaboration opportunities, building configuration and facilities, business support facilities, accessibility, etc.

The large geographic spread of the Precinct tends to focus many smaller businesses on their immediate area, such as the business park they are located in, rather than be concerned with or necessarily aware of activities taking place in other parts of the SAC. As part of the marketing strategy, there is therefore an opportunity to provide SAC businesses with more information regarding the ongoing activities and developments elsewhere in the

Precinct; this approach may help to alert these businesses to new opportunities and networks, which they may otherwise be unaware of.

4.3.3 *Networking*

Many organisations appear to have networks, which extend well beyond precinct or local area. For example, there are a large number of export-oriented businesses in the Precinct with primary networks that involve overseas interests. Many established organisations have built their required local networks over time, while the most important links for other organisations may be internal. For example, at Telstra Research Laboratories the key contacts are likely to be other Telstra departments.

Some stakeholders, while being aware of the on-line Monash Business Directory, do not use the Directory as they prefer instead to use the White Pages to access local suppliers.

The role of Council in advancing further networking opportunities is therefore regarded as limited, and the emphasis should be on practical actions to promote networking and other linkages designed to promote business and the commercialisation of research projects.

Another initiative may be the provision of a formal meeting space or convention centre in the Precinct to encourage networking, although this may be of limited appeal to many businesses and institutions in the Precinct.

It is more likely that a networking effort undertaken under the auspices of a precinct-based representative body (not unlike a chamber of commerce for shopping centres) may be appropriate, and this concept is further developed (among other approaches) in the following Section.

4.3.4 *Leadership and Management*

Consultation indicates that leadership from key Precinct stakeholders and the overall management of the Precinct are high priority issues. Some suggestions from the consultations are listed as follows:

- Council could be more proactive in taking a leadership role for the Precinct.
- Council could facilitate the employment of a Precinct project officer as a contact point for the Precinct who would co-ordinate networking, marketing and Precinct enquiries.
- The Precinct could elect a leader within the centre or “champion” with a commercial background to provide assistance and networking advice to businesses.
- Senior representatives from key businesses and institutions (e.g. the University, CSIRO, Synchrotron, Medical Centre) could be more involved in the Monash Economic Development Forum or in a ‘Precinct Committee’.
- Ensure key organisations sign off on the Strategic Planning Framework (as well as Council, DIIRD and DSE).
- Council could develop a funding model for the Precinct, which would assist in the funding of marketing, branding, streetscape initiatives.

- Businesses could encourage collaboration on traffic management and car-pooling (e.g., businesses promoting their employees to share cars for the journey-to/from-work).

Therefore a recommendation to Council to action is to facilitate the development of a small, representative and focussed Precinct Committee (PC) comprising representative members from Council, Government and representatives of the private sector, that will meet together to discuss the relevant issues and form a schedule of events and activities and provide a focal point for enhancing networking and collaboration within the Precinct. This Committee will be responsible for facilitating the development and operation of a Precinct Networking Group (PNG) that will encourage knowledge sharing, collaboration and networking among all business leaders and employees within the Precinct through events and meetings organised by the PC.

4.3.5 Business Support Services

Business support services cover a wide range of activities and include office suppliers, printers, banks, post office, accountants, caterers, employment services, equipment servicing, etc. As highlighted earlier, the broad business mix found in the Precinct is due largely to the evolution over time of these businesses in providing a supporting role to some of the larger organisations in the Precinct. The consultation process has not identified any major areas at this strategic level where there is demand for new or expanded services. A number of areas were discussed in the consultations, and a summary of these discussions is outlined below relating to hotel, conference/training facilities and retail facilities.

(a) Hotel

Over recent years there have been several speculative applications to develop an upmarket hotel within the Precinct. The consultation process revealed, however, that current business demand for such a facility is relatively low. Nearby hotels and motels (e.g. Glen Waverley Novotel, Gateway on Monash, Waverley International, Village Green Hotel, Mulgrave Motor Court Inn, etc) appear to adequately meet the present needs of local businesses for both client and staff short-term accommodation.

Additionally, it is noted that enterprises have a preference for their corporate visitors and clients to be based in Melbourne's CBD as this allows the visitors to coordinate other meetings (noting that not all business meetings are located in the Monash precinct) and to allow a wider range of evening dining, entertainment and relaxation. While this situation does not preclude the possibility of increased demand for short-term accommodation in the future (in hotels or serviced apartments), a careful approach to hotel development applications is advisable, and with emphasis placed on applicants having to demonstrate market demand.

Consultations indicate that the development of the Synchrotron does create a need for a lower level accommodation (2-3 star) for visiting researchers and users of the 24-hour a day facility. It is likely that this type of accommodation would be built on Synchrotron land. Monash University are in discussion with Synchrotron stakeholders regarding a jointly

funded accommodation project (and which may also provide some student accommodation).

(b) Conference Centre

As with the hotel development, there appears to be little current demand for additional conference/training facilities to be developed in the Precinct. Many of the larger organisations already have on-site facilities or are including them as part of future developments (e.g. STRIP). Other businesses utilise local facilities, including those provided by the larger hotels in the area.

(c) Ancillary Uses: Service retail

While there are a number of service retail outlets (cafes, milk bar, takeaway etc) located within the Precinct, there appears to be little demand for expansion of such facilities. The larger organisations tend to have their own canteen facilities, and many employees also utilise nearby shopping centres (e.g. Brandon Park, Clayton and Pinewood), while others bring their own lunch from home. Any new smaller outlets (such as a café, takeaway, milk bar etc), if strategically positioned, may trade reasonably well as they would add variety for staff in nearby businesses, and this variety is lacking in some parts of the Precinct.

While the idea of a 'retail heart' for the Precinct was discussed at the workshops, such a development would be inadvisable for the following reasons:

- Existing centres are located in close proximity to the Monash precinct, and all of these centres provide an attractive range of retail and other services for residents, businesses and other components in the market. These centres have potential for further expansion, and they should be well placed to meet the needs of new and expanded enterprises in the Precinct.
- A major retail development located in the Precinct would not follow *Melbourne 2030* guidelines as such a development would constitute a new centre and would directly compete with existing retail services provided at nearby shopping centres that surround the Precinct.

The Strategy should therefore be to promote linkages with surrounding centres.

4.3.6 Precinct Name / Branding

Melbourne 2030 refers to the Precinct as the Monash University / Health Research Precinct Specialised Activity Centre. Consultation with Precinct stakeholders indicates that this name is not sufficiently inclusive, as it does not focus on the breadth of activities undertaken in the Precinct. Additionally, there is a feeling that the name does not fully encapsulate the point of difference the Precinct offers. In this context, a number of issues which need to be considered include the following:

- Investment attraction - Businesses need a name by which to identify themselves with the Precinct, just as "Silicone Valley" is an identifiable location for technology in California. This 'branding' is important in attracting additional investment and the

need for an “identifier”. Other Synchrotrons overseas are identified with universal recognition.

- Including ‘Monash’ and ‘SAC’ in the name of the Precinct are only significant at a local level, according to some stakeholders. The name should reflect the range of commercial and technological innovations undertaken in the Precinct and be recognisable at a regional, national and international scale.
- It is possible that a strong branding strategy would elevate the ‘Monash’ designation to a high level of national and international recognition. Monash is already recognised nationally as a place of higher learning, and enjoys strong recognition among overseas professionals who have studied at Monash University.
- There is a need to communicate the message of ‘creativity’ relating to the Precinct.
- Some key words that should be considered include ‘innovation’, ‘export’, ‘friendly’, ‘healthy’.
- Given the mixed-use environment and the diversity of Precinct activities, a name that does not focus exclusively on technology would be more inclusive.

The issue of ‘branding’ is an important one, and will need to be addressed in an expert manner by professional marketing strategists.

4.3.7 Design and Form of Development

Stakeholders highlight the importance of achieving a high standard of streetscape and visual amenity across the Precinct. In particular, they identify high quality landscaping, tree cover and good signage as important improvements to introduce. Stakeholders place a high value on the environment in which they work, and they recognise that improvements in this area would be beneficial in the long term (for example, by creating greater pride for staff in their place of work, assisting in staff retention etc).

Moreover, the quality and appearance of buildings in the Precinct, particularly those with street frontages, is an important economic development consideration, especially in terms of attracting major corporate tenants, including national headquarters. This attraction of major new corporations generates spin-off benefits for existing local businesses where linkages in supply and service provision can be developed. Amenity improvements generally increase resale value of land due to the design and landscaping of a site, hence creating an attractive return on investment. For example, both public and private funds can benefit value and economic wealth generation by applying setbacks and building design, combined with Council’s streetscape maintenance and vegetation provision.

Thus, the design of new or refurbished buildings and sites in the Precinct must be of a high quality and must adhere to strict design guidelines so that building form and landscape values are maximised. The ‘form of development’ involves the physical components of development including amenity, infrastructure, building design, setback and landscaping, public transport access and types of uses to be encouraged or discouraged. It also relates to the scale of development and the manner in which development interacts with surrounding uses and the community. Clear guidelines are required to ensure the design

and form of development is in line with the vision and development goals set for the Precinct.

While many newer business parks in the Precinct have attractive environs, older parts of the Precinct are less attractive and could be significantly improved.

4.3.8 Appropriate Land Uses

Monash SAC aims to encourage specialised uses that serve a specific function by contributing to economic development through innovation and by building on their commercial profile. An “appropriate” use is therefore a use that reflects this goal for the Precinct and promotes quality urban design that contributes to the ‘Garden City’ image of Monash.

As uses that concentrate on technology and on R&D are already encouraged in the Planning Scheme under Clause 22.02 Technology Precinct Policy, it is necessary to provide an avenue for uses that contribute to economic development through other business and commercial activities. Leading businesses will add value to the Precinct by contributing to the growing number of high profile activities operating within the Precinct.

However, a precinct based solely on technology-related businesses and organisations is likely to be unattainable. A more appropriate model is one, which combines a mix of technology-related businesses, supporting businesses and non-technology related businesses. This model, while encouraging further technology and research activities, also allows the Precinct to maximise commercial opportunities.

It is therefore important to recognise that - in addition to the global significance of the Synchrotron, CSIRO, Monash University and the Monash Medical Centre - supporting enterprises in service provision and other roles should not be discouraged based solely on the fact that they are not technology-oriented activities. Alternative uses that contribute to economic development and the high profile of the centre need to be encouraged.

For example, specialised accommodation is not currently permitted within the Business 3 Zone; however, in order to capitalise on commercial opportunities within the Precinct, the potential development of some specialised accommodation should be an option, especially with respect to student accommodation and short-term visitor accommodation associated with the needs of enterprises in the Precinct. Appropriate accommodation is therefore accommodation that meets the objectives of this strategy while providing for the short to longer term housing of student and employees within the Precinct. Clause 21.04 Residential within the Local Planning Provisions state “*demand is high for student accommodation around the Monash University Precinct... and apartment and serviced apartment living is sought after around the Monash Medical Centre*”. To allow such development to occur, planning scheme amendments are required.

Ultimately, the combination of an attractive natural environment, mix of activities, urban design excellence and the presence of high profile tenants will enhance the reputation of

the Precinct and attract further business investment and jobs and foster further links between businesses and institutions.

4.3.9 Inappropriate Land Uses

Although *Melbourne 2030* indicates that technology uses are the preferred activities within the Precinct, other equally important uses are currently located in the Precinct and perform significant economic development roles, especially in the provision of services for businesses and institutions, and jobs for local residents.

There are some businesses located within the Precinct that would appear not to 'fit' in a direct or supporting role in a 'technology' context. The presence of these activities is a product of historical development patterns, and examples of operations that fall into this category include heavy industry and timber storage.

Under *Melbourne 2030* guidelines a Specialist Activity Centre should not compete with other types of activity centres (Principal, Major and Neighbourhood) which contain a mix of core uses including significant retailing capacity and residential developments. Thus, permanent accommodation, significant residential development, and large-scale retailing should, therefore, be discouraged activities in the core of Monash SAC. Where short-term accommodation is permitted, a recommendation to Council is to develop a reverse sensitivity policy in order to prevent such uses causing adverse impacts to existing uses and impeding on the economic function of the SAC.

Other uses that should be discouraged in the Precinct include those that detrimentally impact on the primary economic function and the 'Garden City' image that sets the Precinct apart from other precincts. High-level amenity is important to attract new investment into the Precinct and therefore uses that would reduce this amenity should be discouraged. Obvious examples include heavy, noxious and offensive industries. *Clause 52.10- Uses with adverse amenity potential*, within the Monash Planning Scheme's purpose is to protect the amenity of existing neighbourhoods from such uses from being developed.

Another land use issue for technology-related businesses is risk management. The presence of heavy industry located close to these types of businesses can create potential hazards (e.g., a fire at a timber yard could have serious consequences for a nearby pharmaceutical manufacturer). Future land use planning should carefully consider these risks in order to reduce adverse economic outcomes from a major incident.

4.3.10 Development Opportunities

Development opportunities include existing vacant land or land that is currently under utilised or has the ability to undergo a change of use to better meet the objectives of the Precinct. This may include redevelopment to improve design, increase site density and maximise the economic return from land from associated activities.

There are currently a number of sites in Monash SAC that are under utilised or vacant and have potential for redevelopment. Land is a critically important resource and needs to be

developed according to the Precinct's key long-term objectives to promote technology and its commercialisation, maximise economic benefits and create jobs. By adhering to these objectives, land will be protected from inappropriate development.

As most land in the Precinct is privately owned, the ability to influence economic activity through major land use change is limited. Many of these decisions are essentially those for private landowners to make in the context of operating their own businesses. Thus, the continuing availability of suitable land for development and re-development is a key long-term economic challenge for the Precinct. Over time, some parcels of land will become available for re-development as a result of activities becoming uneconomic at this location, or because of some other influence that foster change. This situation provides an opportunity for Council to set guidelines in the Monash Planning Scheme to ensure that (subject to land suitability and other relevant requirements) such land is prioritised for activities which facilitate economic development and employment, and in particular those that may have a strong technology focus.

In this context, the impact of the Synchrotron project needs to be considered. It is expected that a number of small to medium enterprises will wish to locate in and around the Synchrotron, many of which will provide support services to operations of the Synchrotron.

One of the key challenges of this Strategic Framework is to ensure adequate guidelines and processes are in place to foster and accommodate appropriate technology-based businesses and other commercial investment opportunities, while deterring non-appropriate development.

Map 4 identifies re-development opportunities that exist within the Precinct, including potential development sites. These have been identified using aerial photographs supplied by Council (2002). Those areas identified as vacant are shown in green. Sites that were deemed to have significant potential for redevelopment (at least 1/3 of site undeveloped).

4.3.11 Interface with Residential Areas

Interface issues involve those uses that abut zone boundaries, for example, Residential 1 Zones, which abut the Industrial 1 Zone and Business 3 Zones. As residential uses are sensitive to noise, amenity, air pollution, traffic congestion and odour, these sensitivities need to be minimised in order to protect the residents' lifestyle and to protect the viability of the industrial and commercial uses.

The legitimacy of business in the zone must be protected and recognised in order to ensure they can continue to operate viably. Clause 52.10 of the SPPF applies to any Industry use in the Business 3 Zone (with note 1 or 2) and seeks to "define those types of industries and warehouses which if not appropriately designed and located may cause offence or unacceptable risk to the neighbourhood". This Clause is focused on the impact of industry on residential activity, and for some industry types identifies buffers (e.g. 100m, 500m) to residential zones. For some industries there are no buffer requirements and there is no opportunity to consider adverse amenity impacts on other industry or businesses. Key

interface issues occur at the following locations identified in the Map 5 below, with respect to visual amenity interface, and in particular with those areas that have a predominant residential character. Depending on industry type, specific buffer requirements would be larger based on the buffers required by the Planning Scheme.

These issues need to be addressed in order to achieve two objectives: (a) to maintain a sense of community for existing residents and (b) to enable enterprises to function without constraint from surrounding uses. In addition, the need to provide certainty for existing and future businesses in their operating environments indicates that a more comprehensive approach is needed to manage the potential for inter-face conflicts. A Special Zone is the recommended tool for addressing these issues.

Map 4: Redevelopment Potential for the Monash

Map 5: Residential Interface Points

4.3.12 Access, Transport and Infrastructure

(a) Access

The Monash SAC is well located to facilitate industrial and high technology uses as it is positioned within the broader South-East Melbourne region that is rapidly growing on the metropolitan fringe. The Precinct has major road access from the Monash Freeway, and is close to and will benefit from the Mitcham-Frankston Freeway link. The proposed future extension of Westall Road to the Monash Freeway will also provide access improvements, although clearly a significant level of investment will be required to develop an interchange and the timing of these works is uncertain.

Public transport access is available by bus, and the new orbital bus system has been introduced to connect existing transport networks on Springvale Road and Blackburn Road for improved access for university students. An issue identified in consultations was the limited public transport access and service levels to and from the Precinct and within the Precinct.

Monash SAC is well located in terms of having access to a skilled labour force, although improved commuter services would provide better journey-to-work access for workers. Existing motor vehicle traffic levels are excessive and contribute to significant road congestion. This situation needs to be addressed. In addition, heavy industrial traffic throughout the Precinct is a constraint to achieving a higher level of amenity. The Precinct also needs to be made more permeable for pedestrians and cyclists in order to promote alternative modes of travel.

All of these issues need to be addressed if the sustainability of the Precinct is to be improved. Solutions will involve improved opportunities for people to travel by bicycle, on foot or by commuter shuttle bus within the Precinct. There is also a need to maintain and improve external links to and from the Precinct, and to improve local, regional and metropolitan access for greater economic development. The need for improved commuter services, including better connections and more services, is also noted. Improved permeability of the Precinct will contribute to higher levels of amenity and will make the Precinct a world-class location with a human scale. It will also encourage an improved workplace environment in the Precinct.

(b) Public Transport

Clayton Railway Station is ideally positioned to act as a gateway to the Precinct, especially with regard to access to/from Monash Medical Centre. However, an issue to be resolved involves the public transport zone categories associated with this station. Clayton Railway Station is currently located in zone 2; however, if the zone was to be revised to zone 1 it would be expected to have a positive impact by increasing the number of people using public transport and accessing the Precinct through this gateway.

Most staff and visitors access the Precinct by private car. The main traffic generator is Monash University, with many students driving and parking at the campus. The key reasons for the high car usage are associated with the perception (correctly so, some would argue) of poor public transport, especially in terms of inconvenient time schedules and

poor or nil connecting links with other transport services. While there appear to be many bus services operating along major roads in the Precinct, the services are infrequent and few buses venture into the main body of the Precinct (i.e., into the business parks and the University etc). The provision of free and (in most cases) plentiful workplace carparking is also likely to be a significant disincentive for people to use public transport.

The consultation process highlighted that inadequate public transport links (especially internal services) and difficult road access (due to congestion) to the Precinct is a potential threat to future development. Improved public transport infrastructure and measures to reduce traffic congestion are therefore key objectives for this study.

Consultation also indicates that a shuttle bus concept (possibly on a free basis) could improve connectivity within the Precinct and help reduce the level of private car usage. One shuttle service suggested would link CSIRO, a variety of locations within the Monash University campus (e.g. STRIP, major buildings, Arts Precinct, sports fields), and the Synchrotron site to major existing bus and rail connections.

(c) Physical Linkages

While Monash Medical Centre is somewhat isolated from CSIRO, Monash University and the Synchrotron sites, efforts should be made to provide better physical linkages, especially in relation to the Dandenong Road / Wellington Road crossing. A more direct and safer connection between these major campuses is required in order to consolidate the Precinct and create efficiency and safety in movement.

Consultation with university stakeholders highlights the intention of Monash University to re-locate its main entrance to Blackburn Road, opposite the Synchrotron entrance. Additionally, a number of internal road projects are under consideration, which is designed to improve access around the perimeter of the campus. These changes will allow more direct connections between the two sites and provide improved continuity of access to the CSIRO site. These improvements are important, given that Monash University and CSIRO are investors in the Synchrotron project. CSIRO are also discussing the possibility of removing some fences (subject to security considerations) between its facility and Monash University in order to further improve connectivity.

4.3.13 Cultural and Social Considerations

While the focus of this project is primarily on land use and economic development considerations, it is important that cultural and social factors are also considered. In this regard, two key issues, which were highlighted at the workshops, involved the following:

- The need to provide a range of community facilities in and around the Precinct, which support its functionality. For example, childcare services which support people working in the Precinct.
- The need to harness the benefits of cultural diversity, especially with respect to the Precinct's workforce, and matching people's skills and experience with the needs of public and private enterprises in the Precinct.

4.3.14 Strategic Framework

The strategic framework defines the boundary of the Precinct and identifies appropriate land uses that will contribute to future development of the Precinct and the wider community (see Map 6).

Strategic frameworks are important tools to plan for future development and to ensure that the vision and goals are achieved. The aim of this framework is to direct a hierarchy approach to development with priority given to the inner core of the centre and supportive uses encouraged to locate on the periphery. As the Precinct is an important economic locality, it is necessary in the planning and development process, to guide the specific uses within an active core that reflects the vision and strategic objectives for the Precinct. Appropriate uses (as identified above) will be located within the central core and will benefit from the further promotion of collaboration and networking between public and private sector enterprises and institutions. On the periphery, emphasis will be placed on the location and development of supporting activities that enhance the development of technology and innovation, and without which the Precinct would not be able to function effectively.

This overall concept plan for the Precinct provides direction for planners to assess applications for development or change of use on a case-by-case basis, and provides all stakeholders with a strategic view showing how the Precinct will develop over time.

4.4 Conclusion

There are many issues to address in regard to the Monash SAC and its future role as a premier centre for technology and related development in Australia. The SWOT assessment undertaken through the consultation process highlights many opportunities ahead, but there are also a number of factors that need to be addressed if the positive outcomes are to be achieved.

Key among the issues to address are poor public transport services, image or 'branding' of the Precinct, forging productive links between businesses and institutions, enhancing the landscape and visual amenity of the Precinct, and ensuring that appropriate land uses are promoted for a location in the Precinct. There are other issues, too, such as the need for improved pedestrian permeability through the Precinct, and the opportunity to build on socio-cultural assets of the surrounding community.

The next Section on the subject of Vision and Objectives provides the basis for addressing these issues, and it lays the basis for the subsequent preparation of the "Strategic Framework Plan" for the Precinct.

5 Vision and Objectives

5.1 Introduction

This Section outlines the long-term vision for the Precinct and highlights the key strategic economic and land use objectives for which strategies will be developed in order to achieve this vision.

5.2 Vision

Consultation with key stakeholders in the Precinct identified key directions for the future of the Precinct, including the sharing of knowledge, commercialisation of ideas, high amenity, economic development, cultural diversity, and so on. A vision, which is inclusive of all Precinct business activities, rather than one primarily focused on technology, is considered desirable by these stakeholders.

Given these key objectives and considerations, along with the recognition of existing opportunities for the centre including the Synchrotron, Monash University, Monash Medical Centre and the CSIRO, the following vision has been developed to guide the future of the Precinct:

“A world class precinct which hosts a wide mix of businesses and institutional activities, collaborating to provide leadership in education, health, research and innovation in an attractive working environment which encourages creativity and values cultural diversity”

5.3 Strategic Objectives

5.3.1 Introduction

The strategic objectives for Monash SAC are designed to provide clear guidance and direction for future development in the Precinct. These objectives define the Precinct’s unique opportunities and land use priorities, and set the scene for future local and regional decision-making in regard to business investment and location, and supporting infrastructure and services.

The objectives shape and define the Precinct by encouraging specific activities to locate within the core of the Precinct, and with supporting activities locating generally on the periphery. They are also tools used to clarify the strategic direction and to implement the vision for the centre. These are outlined below.

5.3.2 Strategic Objectives

The strategic objectives for the Precinct include the following:

Objective 1: Networking

- To maximise networking opportunities and other links for businesses, institutions and staff in the Precinct.

Objective 2: Promotion

To promote the Precinct's role as a leader in education and research & development by improving integration between Monash University, Monash Medical Centre, CSIRO, the Synchrotron and other technology uses and support businesses.

Objective 3: Planning Scheme Amendment

- To prepare Planning Scheme Amendments for specific local policies, MSS review and to provide the Special Zone for the Precinct.

Objective 4: Design excellence

- To promote a high level of amenity in streetscape and built form that reinforces the Precinct's significance on a local, regional, national and international scale.
- To promote the Precinct as a premium quality urban environment which is attractive to high profile businesses and contributes to economic development through market leadership.

Objective 5: Mixed land use

- To encourage a range of non-technology based commercial activities (excluding core retail and restricted retail activities) and community services consistent with the zone and its objectives, which contribute to and enhance economic development and employment opportunities in the Precinct.

Objective 6: Businesses attraction

- To encourage and facilitate technology-related businesses and institutions to locate in the Precinct, while also attracting and retaining existing small and medium-sized business, especially those with a primary focus on research and technology, as well as those businesses which service the needs of other businesses/institutions in the Precinct.
- To encourage a range of appropriate non technology-based commercial activities which enhance economic development and employment opportunities in the Precinct. Such activities include office development and modern industrial/warehouse developments but exclude core retail (supermarket, clothes shops etc) and restricted retail (bulky goods, peripheral sales etc).
- To allow for the potential development of specialist accommodation in the Precinct

Objective 7: Knowledge Sharing, Collaboration & Leadership

- To encourage value adding, knowledge-sharing and the commercialisation of ideas through collaboration and integration of businesses and institutions.
- To encourage further clustering of businesses within the Precinct.
- To encourage leading businesses in their fields to locate within the Precinct, especially those which provide commercial, research, medical and educational synergies.

Objective 8: Business support

- To ensure business support services that complement the specialised nature of the Precinct and conventional firms are able to locate in the Precinct.

Objective 9: Branding & Marketing

- To identify and promote a 'brand' for the Precinct which reflects the high corporate and institutional standards of public and private enterprises active in the Precinct. The brand should also incorporate components that relate to education, research & development, medical pursuits and other technology-related activities which feature in the Precinct.

Objective 10: Visual amenity

- To encourage high quality built form and streetscape throughout the Precinct so as to ensure a quality environment for activities pursued in the Precinct. This is regarded as a critical component in attracting new business investment to the Precinct.

Objective 11: Access & Integration

- To provide efficient and safe road and pedestrian access for Precinct businesses, institutions, staff and visitors.
- To improve existing public transport access, links and infrastructure to and from the Precinct.
- To improve internal road, bicycle and pedestrian networks so as to provide improved capacity for the movement of goods, services and people.

5.4 Monash Precinct

The following Map identifies the core area of the Monash Specialised Activity Centre. All areas within this core area contribute to the function, attainment of the vision and strategic objectives.

A specific area along the Princes Highway at the south of the Precinct has been recommended for removal from the core of the Precinct. This area at the south has existing 'bulky goods' and related activity, which is not consistent with the objectives of the zone, and the uses within this area have changed significantly in the relatively recent past. While it is recommended that this area remain as its current Business 3 zone, Council may entertain suitable rezoning applications for some sites, such as for example to allow for

short stay accommodation or student accommodation. Applications or rezoning requests for retail activity in this area however will not be considered.

5.5 Conclusion

Attainment of these objectives will contribute to achievement of the Vision for the Precinct.

Map 6: Monash Specialised Activity Centre: Strategic Land Use Framework

6 Action Plan

The following section provides an outline of the recommended actions and mechanisms for implementation as identified from extensive consultation and research presented in this report. Each key theme has been represented with corresponding actions to be implemented within an appropriate time frame with high, medium or low priority. The key themes reflect those identified in the objectives and include both economic and land use strategies that involve:

- Developing a Management Structure for the Precinct;
- Promoting technology related activities;
- Ensuring land availability;
- Leveraging development opportunities;
- Maximising commercial opportunities;
- Advancing the commercialisation of ideas;
- Encouraging specialist short term accommodation;
- Developing a hotel/conference centre;
- Provide appropriate service retail
- Promote business networking
- Develop effective branding
- Marketing the Precinct; and
- Ensuring design excellence;
- Enhancing streetscape;
- Defining and discouraging inappropriate uses;
- Resolving residential interface conflicts;
- Improving infrastructure and transport.

Each action considers the overall Vision for the Precinct and aims to achieve the objectives of the SAC to obtain economic growth within a unique commercial and physical environment. As each of these actions are addressed, the Monash SAC will move closer to being an internationally recognised and specialised centre of activity to represent Monash on a global and national scale.

No	Strategy	Initiating Entity * And Partners	Action #	Actions	Implementation mechanism	Timeframe	Priority	Funding
Networking (Objective 1, 6, & 7)								
1	Developing an improved approach to management of the Precinct.	Council * DIIRD DSE	1.1	Seek resources to co-ordinate planning, economic development, networking, marketing, promotional and other activities across the Precinct in partnership with private and public sector stakeholders.	<ul style="list-style-type: none"> Investigate the establishment of a Precinct Sub-Committee of the Economic Development Forum to provide opportunities for all businesses to interact and to promote the SAC . 	ASAP and ongoing (DSE funding dependent)	Highest	DIIRD DSE Council (within existing resources)
		Council * Precinct Sub-Committee of the Economic Development Forum	1.2	Capitalise on the ongoing development of Monash University, CSIRO and the Monash Medical Centre to encourage improved integration with the broader business precinct.	<ul style="list-style-type: none"> Invite Monash University, CSIRO and Monash Medical Centre representatives to participate in the Precinct Sub-Committee of the Economic Development Forum 	On going	Medium	DIIRD DSE Council
Promotion (Objective 2)								
2	Promoting the Precinct and Technology Related Activities	DIIRD * DSE * Council * Precinct Sub-Committee of the Economic Development Forum *	2.1	Promote the Precinct as the premier location in Australia for technology and related activities, having regard for the Precinct's strong focus on education, research & technology, and commercialisation of new research.	<ul style="list-style-type: none"> Market the centre to attract specific uses that reflect the zone objectives Utilise existing networks Invite and organise leaders of high profile international, national and state companies to contribute to and enhance the profile of the Precinct. Investigate the development of a Precinct website or the enhancement of Council's existing website. 	On going	Medium	DIIRD DSE Council (within existing resources)
	Promoting Business Networking	Council * Precinct Sub-Committee of the Economic Development Forum	2.2	Investigate the development of an introductory kit for businesses within the Precinct with contact numbers /website details for the Precinct Sub-Committee of the Economic Development Forum,	<ul style="list-style-type: none"> Investigate and develop through the Precinct Sub-Committee of the Economic Development Forum 	Subject to funding	Medium	DIIRD DSE Council (within existing resources)

No	Strategy	Initiating Entity * And Partners	Action #	Actions	Implementation mechanism	Timeframe	Priority	Funding
		Council * Precinct Sub-Committee of the Economic Development Forum	2.3	Seek Government funding to enable the Precinct Sub-Committee of the Economic Development Forum to meet several times a year to share information, discuss issues and highlight opportunities. (e.g. Facilitate a major annual networking event for the Precinct's business community.)	<ul style="list-style-type: none"> Investigate the feasibility of producing and distributing a newsletter, which would include news on major precinct developments, achievements and useful contacts. 	Subject to funding	Medium	DIIRD DSE Council (within existing resources)
Strategy, Policy and Planning Scheme Amendment (Objective 3 , 4, 5, 6, 8 & 10)								
3	Prepare Planning Scheme Amendment	Council * DSE DIIRD	3.1	Encourage changes to State planning provisions to allow both the development of a Special Zone for the Monash SAC and the flexibility in decision making with regard to provision of specialist accommodation in the Precinct.	<ul style="list-style-type: none"> Lobby State Government for changes to planning provisions. 	ASAP	High	DSE DIIRD Council
		Council * DSE DIIRD	3.2	Prepare Planning Scheme Amendments to provide implementation of the objectives in this strategy and Urban Design Guidelines.	<ul style="list-style-type: none"> Rezone areas currently zoned Business 3 Zone to an appropriate Special Zone. <p>The Special Zone to identify appropriate uses within the zone table of uses and prohibit inappropriate uses.</p> <p>The Special Zone to allow for the use and development of accommodation and restricted retail in appropriate locations.</p>	By the end of 2006	High	DIIRD DSE, Council
	Ensuring Design Excellence	Council * DSE DIIRD	3.3	Review the existing Technology Precinct Policy so that the policy better reflects the vision and objectives for the Monash SAC.	<ul style="list-style-type: none"> Undertake review of Clause 22.02. Introduce performance measures and decision guidelines for the local policies. Develop a reverse sensitivity policy Refine approach to Clause 52.10 in the Precinct, in particular in relation to buffers between different industries and businesses that may be sensitive. Prepare and implement design guidelines and take account of site layout, building design, street connection, safety and security, signage, residential interface, services and storage, landscaping, pedestrian access, bicycle access and parking, vehicle access. 	By end of 2006	High	DIIRD DSE Council

No	Strategy	Initiating Entity * And Partners	Action #	Actions	Implementation mechanism	Timeframe	Priority	Funding
	Enhancing Streetscape	Council *	3.4	Investigate the development of a streetscaping strategy, which is consistent with the Garden City image and identifies areas where major improvements are required, and develop a works and funding program for implementation.	<ul style="list-style-type: none"> Prepare brief for the development of a Streetscaping strategy based on urban design guidelines. 	Subject to funding	Medium	DIIRD DSE Council
Branding and Marketing (Objective 9)								
4	Marketing the Precinct	Council * DSE DIIRD Precinct Sub-Committee of the Economic Development Forum	4.1	Rename the Precinct using more inclusive terminology, which reflects of the breadth and depth of activities which take place within the Precinct's boundaries and which reflects the Vision for the Precinct.	<ul style="list-style-type: none"> Develop a brand statement using expert consultants advice. 	Subject to funding.	High	DIIRD DSE Council (within existing funding)
		Council * DSE DIIRD Precinct Sub-Committee of the Economic Development Forum	4.2	Brand, market and promote the Precinct incorporating the new name.	<ul style="list-style-type: none"> Investigate the commissioning of a Marketing Strategy. 	Subject to funding	Medium	DIIRD DSE Council (within existing funding)
		Council* Precinct Sub-Committee of the Economic Development Forum	4.3	Examine the feasibility of placing information boards (containing business and other relevant information) at strategic points around the Precinct and which will reinforce the 'branding' of the centre and develop key "gateways" at physical entry points.	<ul style="list-style-type: none"> Investigate the feasibility of creating 'branded' designed gateways for the Precinct as part of an overall signage strategy. 	Subject to funding	High	DOI DIIRD DSE Council (within existing funding)

No	Strategy	Initiating Entity * And Partners	Action #	Actions	Implementation mechanism	Timeframe	Priority	Funding
Access & Integration (Objective 11)								
5	Improving Infrastructure and Transport	Council* DOI	5.1	Encourage the DOI/VicRoads to be actively involved with Council in regard to Precinct-related transport issues, which include improving bus routes and services, examining the feasibility of introducing a regular shuttle bus service around and within the Precinct, and resolving traffic congestion problems on major roads servicing the Precinct.	<ul style="list-style-type: none"> Encourage students to use public transport. Integrated transport plan to be prepared (Monash University). 	By end of 2006	Medium	DOI DIIRD
		DOI * Council	5.2	Promote increased accessibility through public transport, site planning and walkability improvements.	<ul style="list-style-type: none"> Prepare an integrated package of measures to encourage public transport (e.g. car parking pricing changes). 	By end of 2006	Medium	DOI
					<ul style="list-style-type: none"> Lobby Government to modify the public transport zone from Zone 2 to Zone 1 in order to increase public transport usage associated visits to the Precinct (Changing Clayton Station from Zone 2 to Zone 1). 	By end of 2006	Medium	DOI
					<ul style="list-style-type: none"> Commission a pedestrian walkability and cycling strategy/audit to identify key areas and connections to be improved and developed. 	By end of 2006	Medium	DOI
		DOI * Council	5.3	Promote better integration of Monash Medical Centre via the railway station and bus connections. Improve connectivity between Monash Medical Centre and Monash University by developing a safer pedestrian link between all key sites and within the Precinct.	<ul style="list-style-type: none"> Undertake a feasibility study, which examines costed options for improving pedestrian and bicycle connectivity. 	By end 2006	Medium	DOI
		DOI * Council	5.4	Encourage railway stations and bus stops to promote the "brand" for the Precinct and to act as "gateways" that guide visitors and commuters through the Precinct.	<ul style="list-style-type: none"> Local Signage Strategy for pedestrians moving from public transport to key sites within the Precinct. 	By end 2006	Medium	DOI
Council * DSE DIIRD DOI	5.5	Promote Government initiatives to build the regional transport links.	<ul style="list-style-type: none"> Continue to lobby Government for Westall Road to Monash Freeway extension. 	Ongoing	Medium	Council (within existing resources)		

7 Conclusion and Recommendations

7.1 Conclusions

Overall the Monash SAC has potential to positively impact on the economic growth of the municipality and to represent Australia as a precinct of international significance. Overall, the key element to its success will be to maintain and enhance the existing high standard of amenity, built form, and landscaping which contribute to the Monash Garden City image.

Of the actions identified in the strategy, the highest priority ones involve setting up a management structure to guide the further development and promotion of the Precinct; maximising economic development opportunities; revitalising long-established areas; improving public transport services; and promoting the Precinct as a prime location for technology and other commercial enterprises. Establishing partnerships to drive this activity is crucial.

Success of the overall strategy is dependent on the key actions being implemented in an effective and timely manner by both private sector partnerships and the public sector. A monitoring and review process will be necessary to enable stakeholders to assess the extent to which actions have been completed and the level of impact arising from these actions.

7.2 Recommendations

Key recommendations for the Precinct include:

1. That the Precinct should be appropriately renamed so that the SAC is recognised on a local, national and International scale. A brand statement should be developed in consultation with the State Government using more inclusive terminology which reflects the breadth and depth of activities within the Precinct and which reflects the vision.
2. That Council amend the Planning Scheme to address:
 - Adverse amenity impacts and interface issues within the Precinct such as a Reverse Sensitivity Policy;
 - Rezone land within the Precinct from Business 3 Zone to Special Zone to allow short-term accommodation within and surrounding the Precinct.
3. That new development should be guided by the Urban Design Guidelines to maintain the Precinct's high standard of amenity and enhance the Garden City image.
4. That a diverse mix of appropriate uses as defined within this Strategy should be encouraged in the Precinct including high profile commercial uses that add value to the Precinct's reputation.
5. The Technology Precinct Policy should be reviewed to reflect the Vision and Objectives.

Appendix 1- Management Committee

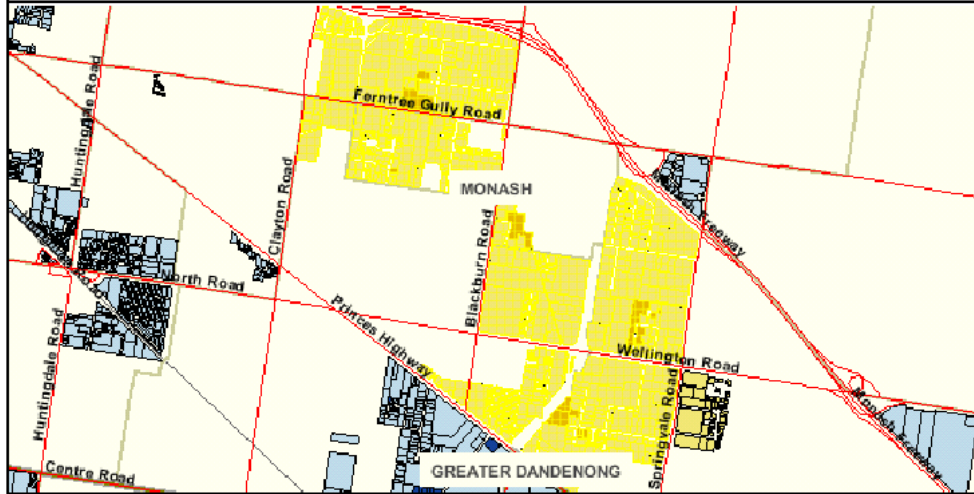
A management committee to guide the project at key stages was developed from representative members from the City of Monash, Department of Sustainability and Environment, Department of Infrastructure, Monash University, Monash Medical Centre and the Project consultant team comprising Beca Pty Ltd and Essential Economics.

Appendix 2 – Vacant Land

Source: <http://services.land.vic.gov.au/map/imf/urbandev/urbandevReport.jsp>

Region	BUSINESS 3 ZONE		Total Area ha	
	Occupied	Vacant	Occupied	Vacant
East				
Monash	388.43	19.99	388.43	19.99
Sub-Total	388.43	19.99	388.43	19.99
Grand Total	388.43	19.99	388.43	19.99

Selection Extent for Report

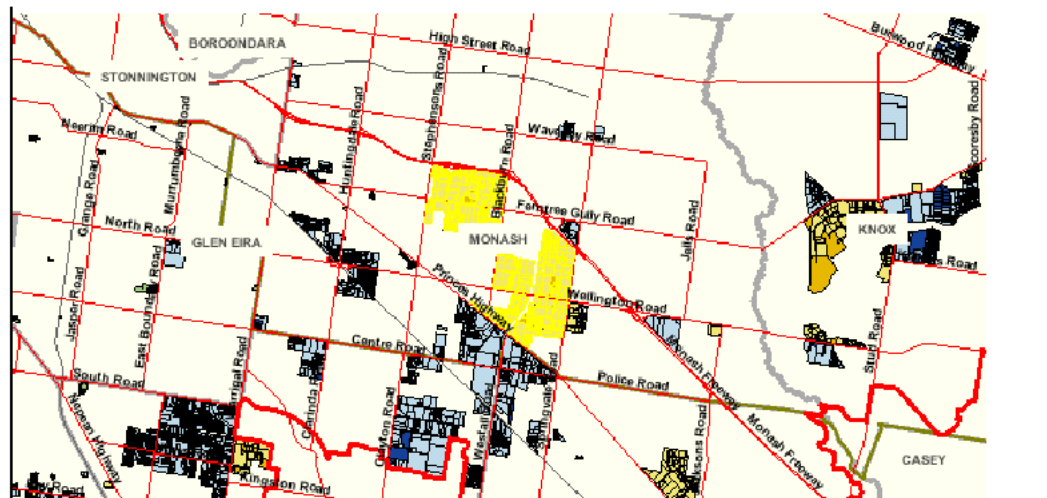


Legend

Industrial Development Status



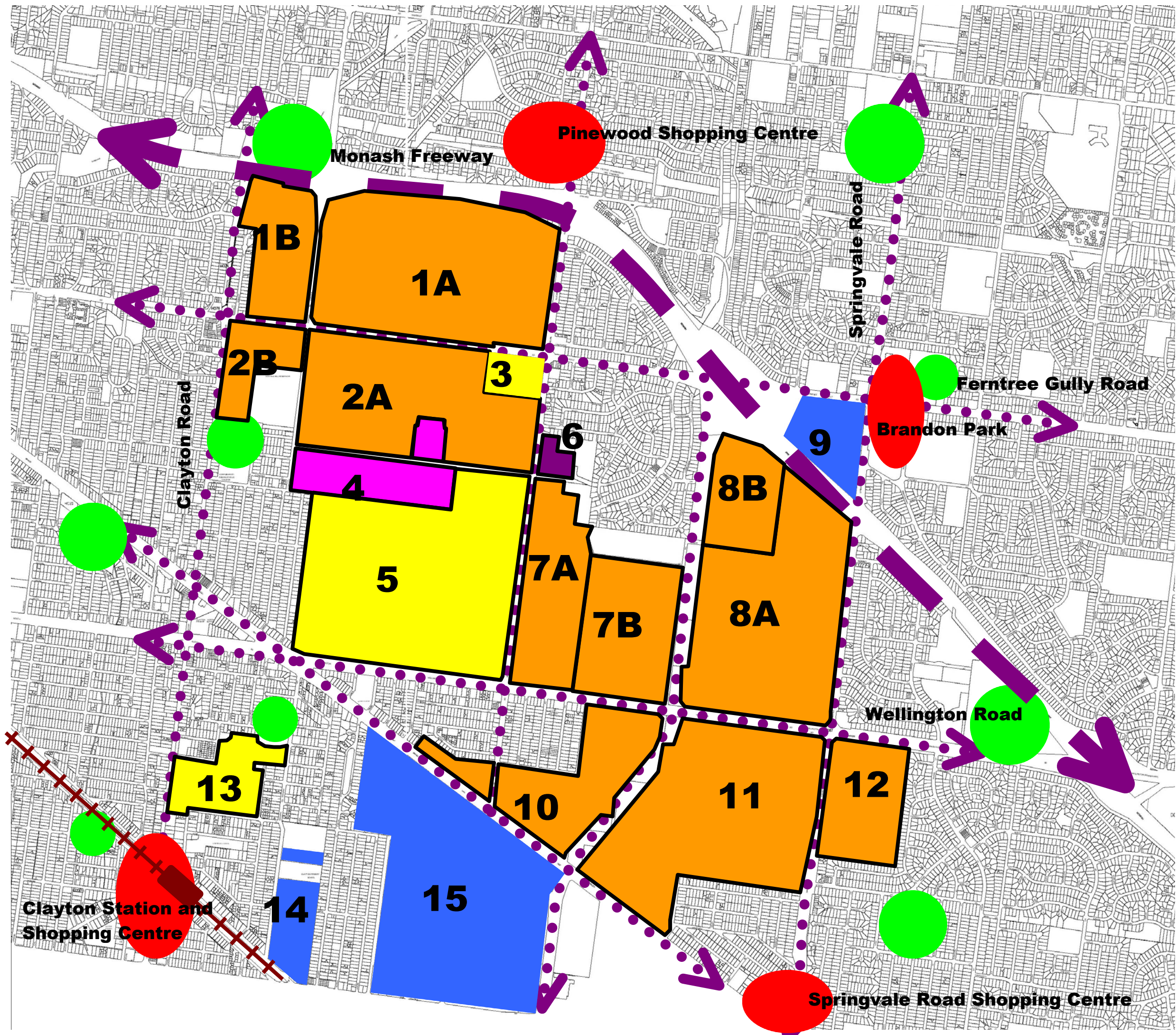
Items highlighted in yellow are represented in the report



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LEGEND


- Special Use Zone
- Public Use Zone
- Industrial 1 Zone
- Mixed Use Zone
- CSIRO (Commonwealth)
- Public Open Space
- Retail Centres
- Major Roads
- Preliminary Proposed SAC Boundary
- 9 Land Use Audit Reference



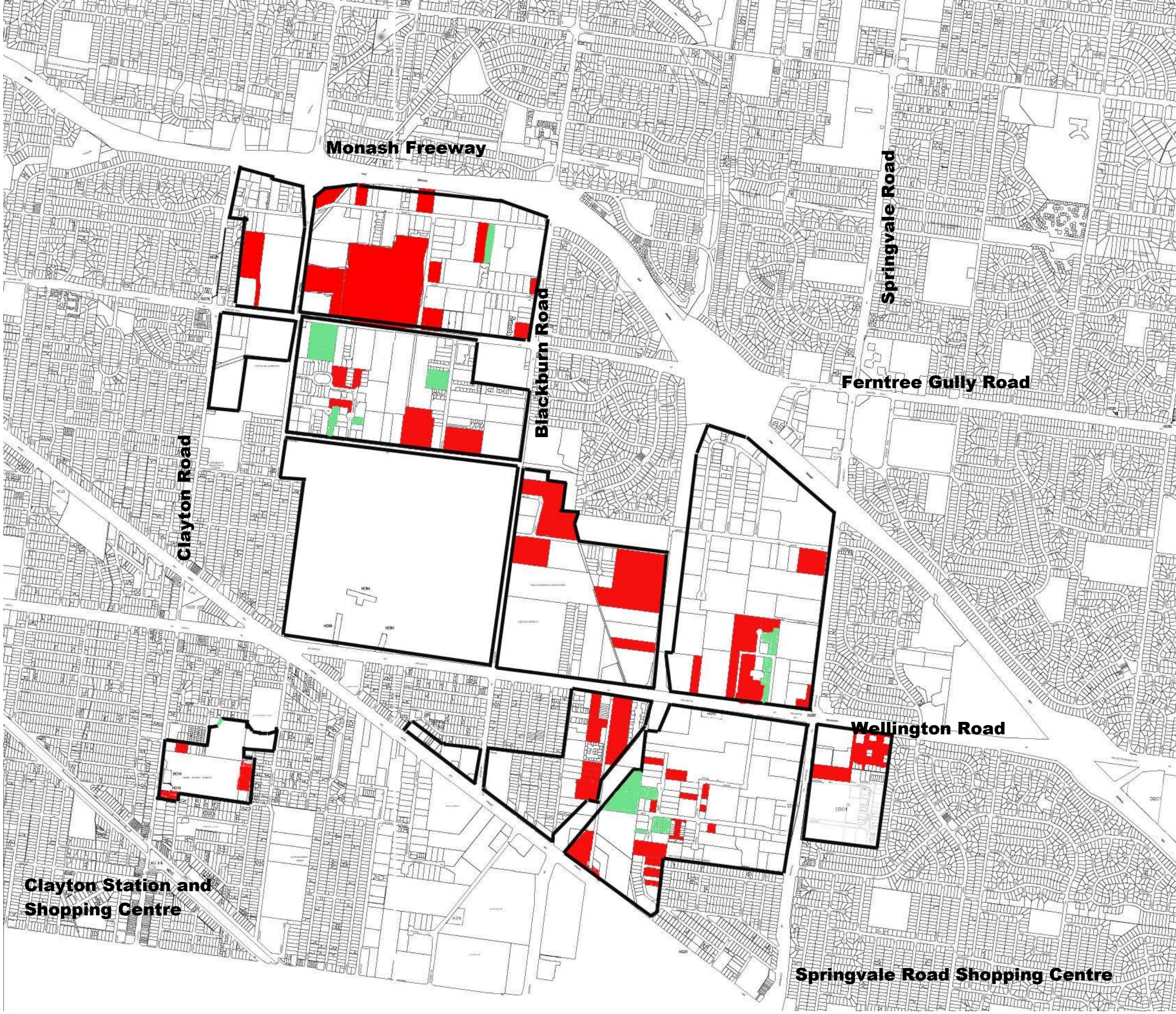
Map 3:
MONASH SPECIALISED
ACTIVITY CENTRE
LAND USE AUDIT

LEGEND

 Vacant Land

 Land with undeveloped portion

Assessment based on aerial photos 2002. Yet to be verified through field confirmation



Map 4:
MONASH SPECIALISED
ACTIVITY CENTRE
VACANT & UNDER-UTILISED
LAND

Clayton Station and Shopping Centre

Springvale Road Shopping Centre

Monash Freeway

Springvale Road

Ferntree Gully Road

Blackburn Road

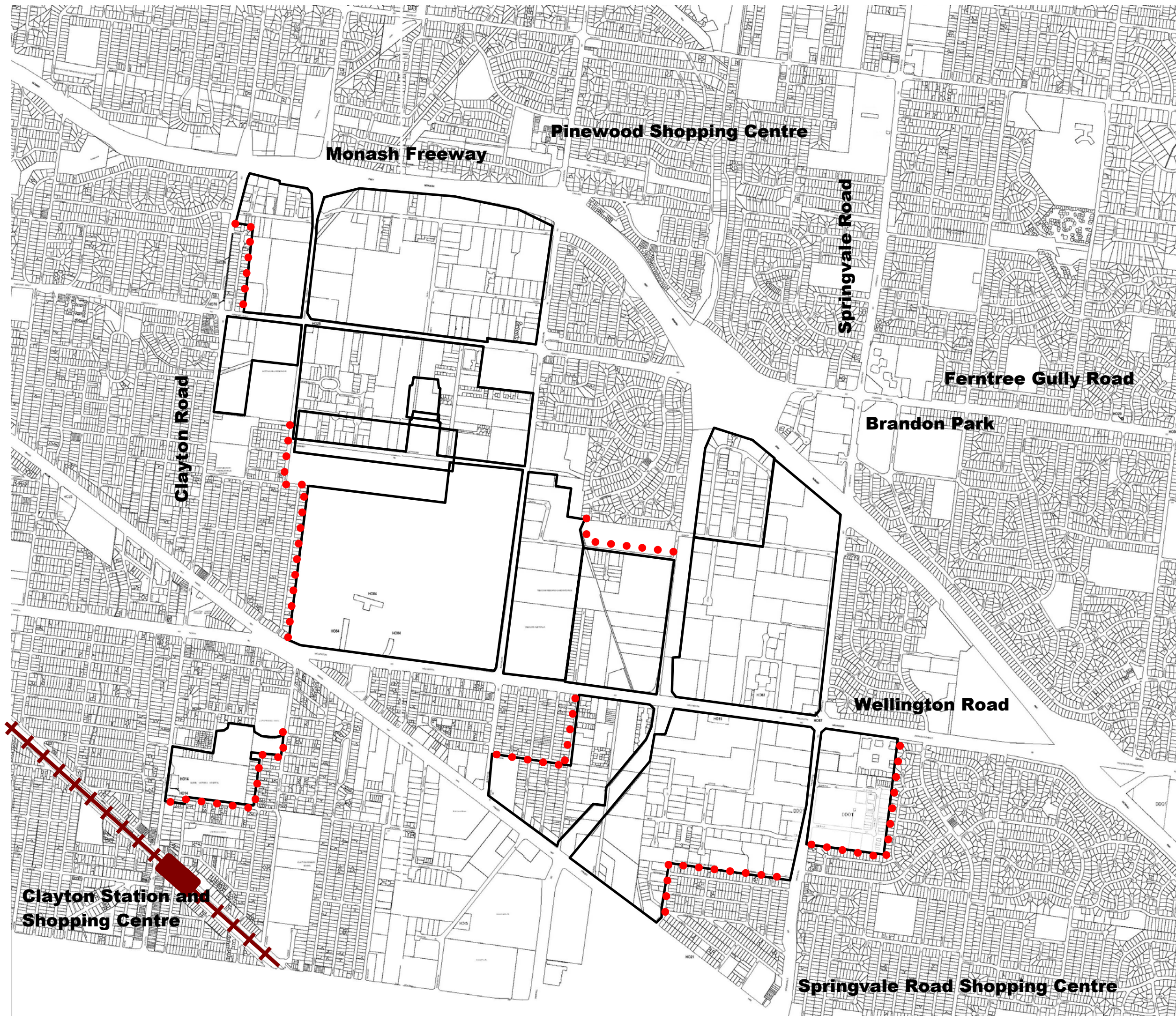
Clayton Road

Wellington Road

LEGEND

 Proposed SAC Boundary

 Residential Interface Areas



**Map 5:
MONASH SPECIALISED
ACTIVITY CENTRE
RESIDENTIAL INTERFACE
AREAS**

**Clayton Station and
Shopping Centre**

Pinewood Shopping Centre

Monash Freeway

Springvale Road

Ferntree Gully Road





Brandon Park

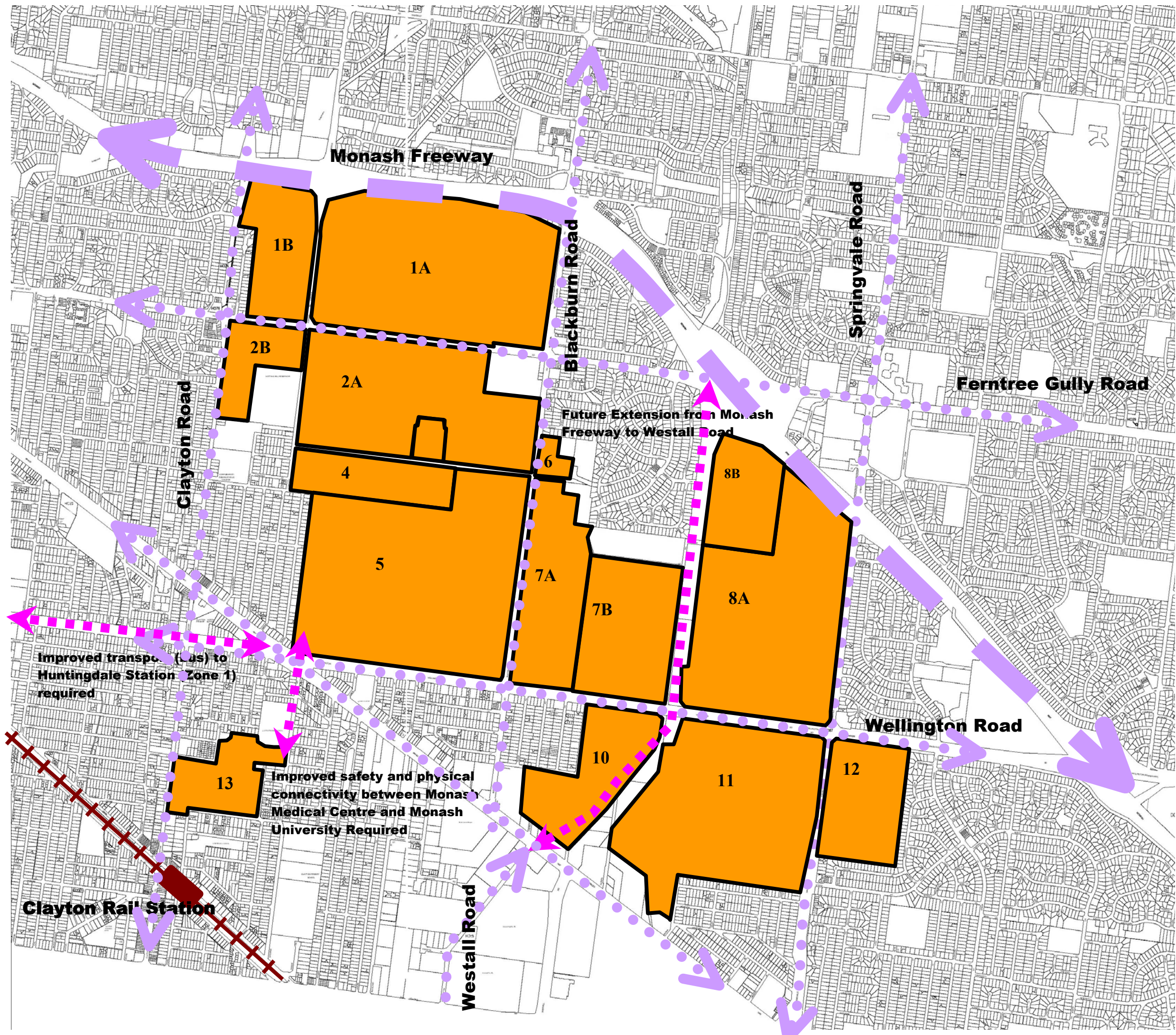
Clayton Road

Wellington Road

Springvale Road Shopping Centre

LEGEND

-  Area identified as 'Monash Specialised Activity Centre'
-  Major Roads
-  SAC Boundary
-  Connectivity Improvements



Map 6:
MONASH SPECIALISED
ACTIVITY CENTRE
STRATEGIC FRAMEWORK