Attachment 6: Extract from City of Melbourne Local Livability Study 2015
A CITY FOR PEOPLE

We support our community members – whatever their age, sex, physical ability, socio-economic status, sexuality or cultural background – to feel like they can be active, healthy and valued. We plan and design for our growing city, including safe, healthy and high-quality public spaces.
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**Local Liveability Study**

**Published July 2016**

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1. FOREWORD

The Local Liveability 2015 Study provides a comprehensive and integrated understanding of how the city performs at a local, everyday level for people.

The Local Liveability 2015 Study challenges our thinking, poses new questions, and seeks to revitalise our approach to planning and design so that Melbourne can continue its growth and development as a resilient and accessible city.

Over the last three decades, City of Melbourne strategies and programs have worked towards creating a city that attracts people. These have been profoundly successful in reversing the exodus of residents, workers and shoppers to the suburbs, which became evident by the 1980s when the centre of Melbourne was abandoned after work hours. Over the last 20 years Melbourne’s accelerated growth has created new challenges relating to the quality of life the city offers. How can Melbourne be sustained and improved while population densities continue to rise, and relatively homogenous residential tower and podium development models dominate?

While the traditional survey methods of Places for People capture the number of people attracted to the city’s public spaces, they are unable to reveal the quality of life for locals or visitors. To address this limitation, the Local Liveability 2015 Study takes an expanded approach to investigating Melbourne. It introduces a new methodology that enables some of the more complex elements and nuanced relationships within the city to emerge. It is grounded in best-practice urban design and planning for achieving realistic, democratic and sustainable outcomes.

Quality of life in the Central City is significantly shaped by the ease of access to civic and commercial services for residents, workers and visitors. The Local Liveability 2015 Study investigates the city from a user and performance perspective. It asks to what extent do different parts of our city serve our daily needs? Central Melbourne’s current liveability is explored as it is experienced in everyday terms. It sets out a series of evidence-based recommendations to provide a platform to further develop performance-based planning and design. Potential for enabling a city that performs for everyone is mapped, drawing out some of the complex correlations and interdependencies involved in shaping the city.

In generating and analysing compelling compounds of data, the Local Liveability 2015 Study applies an integrated and dynamic lens that allows the urban specialist as well as a general audience to readily comprehend the Melbourne condition. This study presents a clear framework for future recommendations to improve the quality of life in our city, and establishes a comprehensive evidence base to inform future thinking, planning and design.
2. BACKGROUND

The premise of the Places for People Study is that people are drawn to places of high-quality design that feature attractions and other people. A growing number of people over time is an indicator of success. Since 1994, Places for People has collected information each decade to produce longitudinal data to monitor use and qualities of urban space.

Places for People measures particular urban conditions over time, documenting how the city is changing. The first Places for People (1994) focused on attracting people back to the city after a long-term exodus of residents, workers and shoppers to the expanding suburbs, which was compounded by the economic recession at this time. A decade after this, Places for People 2004 documented the city’s revitalisation as it redefined its regional and global identity and functions, attracting people back through residential, commercial and retail development and with regional attractions.

Places for People has traditionally measured the extraordinary rather than the ordinary—the special rather than the everyday and the regional rather than the local. Urban surveys have concentrated on prominent streets and public spaces in the retail core, followed by the commercial district and Southgate and later extended to the growth areas of Southbank and Docklands.

While it remains valid to measure and monitor the city’s public environment and public life, the challenge of a declining population has now reversed, with substantial population growth projected to continue. Measuring success simply on the number of people who live in, work in and visit the municipality is no longer enough. Ensuring that Melbourne remains a functional city that performs for all is now vital. A different set of issues demand a different method of urban investigation.

The Local Liveability 2015 Study expands beyond the traditional focus on the public realm and considers how the city has rapidly changed in its urban form and structure, and the impact these changes have on the daily lives of Melbourne’s people.

A review of international best practice and experience gained from previous Places for People studies highlighted the need to research a broader range of urban components in order to understand the conditions that shape Melbourne. The interdependencies of these components, which influence the intricate complexities of daily life, are examined in the Local Liveability 2015 Study. For example, urban structure influences movement and connectivity; urban form accommodates the many uses characteristic of cities; land uses embed activity generators into the city’s fabric and generate economic, cultural and social networks; and population density is vital for viable economies and services. The Local Liveability 2015 Study explores the correlations between these fundamental urban components to identify the conditions that enrich or compromise city living.

Results show that urban structure and the relationship of buildings to open space determines the proximity of and accessibility to local land uses. A permeable urban structure (with small blocks) results in larger walking catchments which cultivates greater walkability. Fine grain, smaller scale buildings enable a greater number of land uses and give purpose for walking and alleviating car use. Consolidating land parcels stifle the accrued benefits of proximity and connectivity. Buildings that better knit themselves into the wider urban fabrics by integrating population density with mixed land-use and permeability generate better holistic outcomes. It is apparent that private development has rapidly changed the urban structure with an unfavourable impact on land use, local movement patterns and how communities access the city.

In addition to assessing the impact of built form on land use, urban structure and walkability, the Local Liveability 2015 Study introduces a new approach to understanding of local living. It questions to what extent does the city perform for its people in terms of servicing everyday needs? What potential exists for optimising better outcomes in health, the environment and resilient local economies? The local neighbourhood concept requires compact, walkable, highly connected areas where essential everyday needs are on your doorstep and the people, knowledge, skills and culture you want to connect with are just a stroll or tram ride away.

Neighbourhoods do not necessarily exist on maps; they exist in the minds of the individual city user. However, the functionality of areas in terms of their provision of services, their nature and density, can be assessed through a series of survey points and related catchments. This is the approach the Local Liveability 2015 Study takes for the study area in the Central City, Docklands and Southbank.

The Local Liveability 2015 Study builds on past successes and maps a series of conditions to identify potential for improvement. From these, a set of new key recommendations were developed. In considering urban design as a platform for integration, the recommendations reflect the intricate interdependencies that underpin the development and adaptability of cities. They propose a suite of actions and considerations linking the spheres of policy, planning and performance-based assessment.
3. PREMISE AND APPROACH

This section outlines the project premise and details the urban components researched at a local scale by applying the newly defined method of the Local Liveability 2015 Study.

The scope and complexity of the Local Liveability 2015 Study investigates those urban conditions considered essential to the quality of our daily lives.

While the project premise is founded on international best practice, the Local Liveability 2015 Study was tailored to capture the Melbourne condition relating to how the city has changed and how it currently performs for people at a local level.
Introduction

As with other cities across the world, Melbourne’s city provides a centralised and common geography of exchange, offering the promise of a good life with opportunities and choice. Cities like Melbourne exist to generate broad forms of wealth for all people. They do this by facilitating the exchange of culture, commerce, knowledge, ideas and skills, fostered by the proximity and connectivity of its component parts: the most vital being people, buildings, land uses, movement networks, and open spaces.

The Local Liveability 2015 Study seeks to test the established premise that mixed used neighbourhoods are the foundation of a sustainable city, as a way of life and also as an organising principle.

A series of questions guided the framing of The Local Liveability 2015 Study research:

- Which areas of the city are well used? Do we know why?
- To what degree has the city changed?
- What, if any, impact do these changes have on the everyday life of its citizens?
- Does the city serve the everyday needs of its people? Where and how?
- What is the nature of the relationship between the vital urban components?
- What combination and configurations of urban components generate compact walkable and highly connected areas, which enable more localised living?
- How can the City of Melbourne guide sustainable growth and enable a basic quality of life for its locals and visitors?

Informed by these questions, The Local Liveability 2015 Study introduced the local level to the spatial hierarchy of research which is applied for the first time in recognition that some issues do not reveal themselves at a district level, nor at an individual building scale. Principal findings are outlined in Section 5.
Research Evolution

As the Local Liveability 2015 Study developed, it became clear that some issues do not reveal themselves at a district level, nor at an individual building scale.

A method for investigating the city at the local level was developed through the refinement of the urban lenses to examine the Melbourne condition for those urban components considered as shaping the "essence" of the city and influencing its success in meeting essential needs and expectations of city users. The methodology’s primary concern was to capture the integrated nature of the urban components at a local level. Cities are not just buildings, roads, people or land uses in isolation. They are an assemblage of all these things, comprised of interdependencies and flows between each that together determine the socio-spatial composition of local neighbourhoods and the quality of people’s lives. The refined series of lenses are outlined below.

FIG. 1. The integrated lens of the neighbourhood

Population Density

What is it?

Population density is the number of residents and workers that occupy a research catchment. In the Local Liveability 2015 Study each research catchment represents a 5-minute walk, determined by the true walkability of 500m from its centre. Using this spatial measure, the area and shape of each research catchment varies according to the permeability and granularity of the urban structure.

The ratio of residential to employment populations provides an understanding of who inhabits the catchment at different times of the day, and by what proportions.

Why is it important?

Population density as a standard of people per hectare has been evaluated to take into account more complex inter-relationships such as accessibility, car use, parking, open space, and distribution of facilities per capita.

Urban Structure and Built Form

What is it?

Urban structure is the spatial arrangement of a city’s primary organising components: the blocks, open spaces, street network, land parcels, and natural physical features such as rivers, floodplains and topography. The built form and land uses contribute to and influence the city’s urban structure.

Why is it important?

The urban structure shapes how people live, connect and draw wealth from local areas. The scale and arrangement of a city’s urban structure influences the scale and granularity of the buildings and connectivity between the buildings, their uses, and open spaces, public and private.
External Space

What is it?

Typically, external space is referred to as ‘open space’. However to avoid confusion with the City of Melbourne Open Space Strategy, open space is referred to as external space. External space refers to those places at ground level that are open to the sky. External space that is publicly or privately owned and managed is considered, regardless of whether it is accessible to the public. This includes movement networks such as pedestrian streets, civic spaces such as squares, green spaces such as parks and gardens, outdoor sports facilities, children and teenager play areas, spiritual places, productive landscapes, amenity spaces such as courtyards, and undefined spaces including vacant land.

Why is it important?

Through its design, function, distribution and accessibility, external space is an important functional and cultural requirement of the city, offering places that are distinctive and meaningful to people, External space has value in providing communal venues for social exchange and physical exercise that benefit our physical and mental wellbeing. External space may be designed for the protection and rehabilitation of biodiversity and natural habitats and mitigating the effects of the urban heat island effect.

Local Land Use

What is it?

Individual land parcels influence local outcomes according to the type of activity they house and the degree of mixed use fostered. Land uses give purpose to local trips, fostering economic exchange, social interaction, sense of community and connection to place, determining the ability of people to locally meet their everyday needs.

Why is it important?

The degree of land use mix has a larger bearing on the quality of local liveability. People have a need to access goods and services essential to their everyday lives (although varying from person to person, there are land uses in common to all). Places deficient in the essential everyday land uses necessitate travel beyond the immediate area, imposing a range of long-recognised costs on the individual and society; less free time, greater dislocation from local neighbourhoods, more motorised travel and the environmental and health implications that follow, to name just a few. These costs profoundly diminish the quality of life.

Local Movement

What is it?

Local movement considers active modes of transport including walking, cycling as well as public transport to access everyday needs, including work, school and leisure.

Why is it important?

Compact, mix use local areas with highly-connected streets that support a variety of active modes are considered to provide multiple benefits. Walkable proximity supports a range of tangible, and long-proven social, economic and environmental benefits including; the enabling of propinquity (the physical and psychological proximity between people) and more physical exercise, helping to reduce obesity rates and associated health complications as well as pollution, carbon emissions and traffic congestion.
4. KEY RECOMMENDATIONS

This section presents the principal recommendations formulated in response to the research findings.

These evidence-based recommendations are intended as a starting point for a conversation with Melbourne’s people, and to guide the City of Melbourne’s ongoing and future work.

Through studying the Melbourne condition we know the recommendations are practical and realistic and will support our city to continue its evolution as an exceptional place for its people.
An integrated toolkit

The Local Liveability 2015 Study generates a new platform of evidence to shape Melbourne's future. This will facilitate an assessment framework enabling an integrated, more equitable, performance-based approach to urban planning and design.

The research study introduces Liveability Indicators, which could be transformed into a guidance and monitoring tool for achieving integrated and sustainable local neighbourhoods. The optimisation of such Liveability Indicators provides scope and direction for future urban growth.

Develop an assessment framework that optimises compact relationships between people, buildings, open spaces, public transport nodes and local essential land uses, to establish walkable proximity between all components.

Investigate tangible mechanisms to enable the provision of external space in private development to foster a permeable urban structure and a diversity of open space types; public, private and communal as part of the evolution of walkable, mixed use neighbourhoods.

Explore tangible mechanisms to enable existing private and disused external spaces to become more functional to the evolving needs of the population.

Investigate building typologies that support a greater diversity of land use, housing choice, open space provision and enhance connectivity with the surrounding urban context. Develop design guidance that promotes buildings that are adaptable to changing land uses and scales of tenancy over time.

Develop density guidance linked to public transport accessibility and minimising onsite car parking provision. Review the car parking provision rates in the Melbourne Planning Scheme to reduce the amount of development area dedicated to car parking.

Ensure the City of Melbourne’s transport policy is embedded in future development of the city.

Develop essential land use and local facilities guidelines based on existing and projected population catchments.

Investigate economic policy levers that support diverse types of small businesses to foster vibrant and resilient local economies.

FIG. 2. The integrated toolkit could provide a performance-based assessment framework providing direction for future optimisation of urban growth.
This section outlines the principal findings of the Local Liveability 2015 Study. It outlines key observations before detailing what the data reveals about the performance of and interrelationships between urban components.

Introduction

- The neighbourhood concept
- Research catchment selection
- Neighbourhood liveability indicators

Local Liveability indicators

- Catchments matrix
- Key correlations
- Performance

Research with the community

- Introduction
- Preliminary findings
INTRODUCTION

The Neighbourhood Concept

Cities provide the locus for the exchange of culture, commerce, knowledge, ideas and skills. This exchange is fostered by proximity and connectivity to and between people, buildings, land uses, open space, transport routes, nodes and so on. These exchanges define the ‘essence’ of cities. A review of international best practice undertaken as part of this study highlights this ‘essence’ is best optimised by local living where people reside in compact, walkable, mixed use and highly-connected neighbourhoods, where essential everyday needs are on your doorstep and the people, knowledge, skills and culture that you connect with to generate wealth, are just a walk or tram ride away. Where you live, work and relax, are all contained within a local area.

Walkable mixed use neighbourhoods enable local living. They are the foundation of the sustainable city, as both an organising principle and a way of life. In order to achieve sustainable urban growth, Melbourne will need to explore the local neighbourhood as the locus of social cohesion, and as a means of planning for proximity. Walkable neighbourhoods provide individuals and communities with a range of tangible health, economic and environmental benefits by: increasing physical activity levels that reduce the risk of obesity; improving neighbourhood social capital and sense of community; lowering the risk of traffic incidents; increasing local economic spend, and reducing greenhouse gas emissions (Giles-Corti 2014:9). The Local Liveability Study assesses the correlations between urban structure (as expressed by walkable catchment areas), population density and the accessibility and availability of a variety of services, facilities and community goods that are essential to daily life in the city.

Local-level research seeks to understand the neighbourhoods we have, the neighbourhoods we need, how physical neighbourhoods form community life, and how our communities shape local neighbourhoods.

FIG. 3. The Local Liveability Study seeks to assess local social and spatial relationships to understand how the study area's changing form influences the daily lives of its people.

FIG. 4. Zoning separation of activities leads to reliance on the private car.

FIG. 5. Optimisation of ‘Local Living’ where the exchange of knowledge, culture and skills is based on proximity and connectivity.
The local neighbourhoods study seeks to demonstrate the relationship between denser urban structures and the accessibility and availability of a variety of services, facilities and community goods that are essential to daily life in the city. This is to gain a greater understanding of the conditions that best facilitate sustainable walkable neighbourhoods such that future urban design and planning initiatives foster optimal urban relationships in the most targeted, integrated and nimble means possible.

The local neighbourhoods study seeks to understand local living and its optimisation for better outcomes in health, the environment and resilient local economies. In understanding the 20 Minute Neighbourhood concept of Plan Melbourne, and its application to the city, neighbourhoods are fundamental building blocks for a strong and resilient city (State Government of Victoria, May 2014).

FIG. 6. Indicative arrangement of 400m and 800m walking catchments as per Plan Melbourne’s 20 Minute Neighbourhood concept.

The inner city blurs the traditional understanding of the neighbourhood. The intensity of land uses breaks down easily discernible segregations of civic, commercial and residential use. That is not to say that neighbourhoods do not exist, or that people do not require compact local living to fulfil their needs and expectations.

The study seeks to explore how the inner city density drives requirements in civic use, commercial use and open space, and how a hierarchy of need determines proximity of civic use, commercial use and open space by foot, bike and public transport.

FIG. 7. The inner city blurs the traditional neighbourhood concept. With the high densities of the inner city, our access to essential daily needs focuses the study on the 5-minute walk (400m) whilst the 800m walk overlaps with adjoining neighbourhoods.
A hierarchy of local land uses span a 400m–800m range reflecting people’s daily needs and economies of scale in relation to population thresholds.

A diversity of land uses within a 400m walking catchment benefit from mutual proximity and clusterings that promote economic viability through multi-purpose trips and networks of exchange.

Accessibility levels of 800m serve a wider district function for economies of scale and frequencies of use, but 200m–400m accessibility facilitates higher frequency of use to a wider population.

“The average threshold for walking is 5 minutes (400m). When most daily needs of residents and workers can be met within walking distance, not only do they walk more but they use the car significantly less” (Condon 2010:68-9).

The “ability of residents to walk locally depends on the way their neighbourhood is designed. Walking is more likely if neighbourhoods have well-connected street networks, a variety of local destinations including public transport, and there is adequate residential and employment density to support local shops, services and public transport” (Giles-Corti 2014:9).

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FIG. 8. Indicative Essential Landuse Population Thresholds, based on international best practice.

FIG. 9. Proximity of land uses based on international best practice.
Research Catchment Selection

To understand the Local Liveability 2015 Study area at a local level, 5-minute walking catchments were identified across the study area to effectively act as a sieve and allow for disparate urban geographies and their components to be compared ‘apples for apples’. For greater rigour and to reflect the true local urban conditions, real 5-minute walking catchments were determined rather than standard ‘as-the-crow-flies’ walking radii.

The standard convention of the 5-minute walk is 400m. This is an international convention that averages a diverse range of human capabilities. In assessing the real walking catchments across the city an additional 100m radius central to each catchment was accommodated to represent a conceptual spatial component from which to measure the 400m from (Fig. 10).

Neighbourhoods are utilised as the defining concept to measure the performance of different parts of the city ‘apples for apples’. The survey points in the Central City area based on the City Loop stations, not necessarily as the centre of a community but merely a series of places distributed evenly around the city from which distances could be measured. The 1974 Strategy Plan showing the stations distributed to ensure there was no gaps reinforces this justification. (Fig. 11).

Outside the Central City, the survey points are distributed to provide an even coverage and are, by and large edged by natural boundaries such as the River Yarra and Docklands Harbour.

FIG. 10. Real walking catchments were spatially determined across the city reflecting true walkability rather than standard ‘as-the-crow-flies’ radii.

FIG. 11. City Loop Station Walking Catchments in City of Melbourne’s 1974 Strategy Plan.

(SOURCE: InterPlan for City of Melbourne, 1974, City of Melbourne Strategy Plan)
Real walking catchments were spatially determined across the city reflecting true walkability rather than standard ‘as-the-crow-flies’ radii. Every catchment selected was within 200m from a public transport node and was located to maximise the population within. There were 15 catchments selected to cover maximum walkable areas of the study area:

**Central City**
- Primarily informed by the five City Loop train stations, as originally conceived in the City of Melbourne’s 1974 Strategy Plan (Fig. 11).

**Queen Victoria Market**
- To reflect the City North Structure Plan (City of Melbourne 2012), which identified the Queen Victoria Market as a local centre.

**Southbank**
- Informed by City of Melbourne structure plans.
- Further adjustments made for optimal coverage of Southbank.

**Docklands**
- According to existing private development hubs.
- Additional catchments to cover in-between areas to permit observations to be drawn from the widest expanse of the area possible.

**FIG. 12. Fifteen catchments were selected to cover maximum walkable areas of the study area**
The following Liveability Indicators were compared across the 15 catchments to measure their comparative performance. The Liveability Indicators are derived from the neighbourhood concept in relation to the Urban Components.

## Population density

### Residential Population
(No. People per Catchment)

The number of people living in the research catchment and the proportion of residents in relation to the number of workers.

### Employment Population
(No. People per Catchment)

The number of people working in the research catchment and the proportion of workers in relation to the number of residents.

### Total Population
(No. People per Catchment)

The combined number of people living and working in the research catchment.

### Residential Gross Density
(No. People per Hectare)

A common unit of measurement for assessing the spatial distribution of people to make like-for-like comparisons with other parts of the city. Residential gross density calculates the whole catchment area including streets and open space.

### Residential Net Density
(No. People per Hectare)

A common unit of measurement for assessing the spatial distribution of people to make like-for-like comparisons with other parts of the city. Residential net density calculates the portion of the catchment area excluding streets and open space.

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**Employment Gross Density**

A standard unit of measurement for assessing the spatial distribution of people to make like-for-like comparisons with other parts of the city. Employment gross density calculates the whole catchment area including streets and open space.

**Employment Net Density**

A standard unit of measurement for assessing the spatial distribution of people to make like-for-like comparisons with other parts of the city. Employment net density calculates the portion of the catchment area excluding streets and open space.

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FIG. 13. Population density
Urban structure and built form

Number of Blocks

An indicator for the scale of urban structure, with a greater number of blocks generally correlating with smaller block sizes and a larger number of intersections.

Average Length of Blocks

Closely related to the number of blocks as an indicator of spatial scale, average block length determines the location of intersections, and so the permeability of the urban structure.

Number of Intersections

Determined by the size and shape of blocks and the width of streets, the number of intersections indicates the degree of permeability and connectivity within the urban structure.

Number of Land Parcels

An indicator for the scale of the built form and land use patterns within blocks, the number of land parcels provides a sense of the degree of granularity that may be experienced.

Land Parcel Sizes [S, M, L, XL, XXL, Super]

The number of land parcels may or may not correlate with the number of blocks; the proportion of different parcel sizes contributes to a clearer understanding of the scale of built form and land use patterns.

Gross Catchment Area (Sq.M)

Gross catchment area includes land parcels, streets and open space.

Net Catchment Area (Sq.M)

The net catchment area includes land parcels but excludes streets and open space.

Unbuilt Space (%)

The area of unbuilt space is the opposite of net catchment area: the total catchment area excluding land parcels but including streets and open space. This is measured as a percentage of the gross catchment area.

FIG. 14. Urban Structure
Local movement

Car Spaces per Resident

The number of residential car parking spaces is an indication of residential car dependency, and so symptomatic of how walkable the research catchment is in its urban structure, types of land uses, and the provision of public transport to connect to other areas.

Car Spaces per Employment

The number of worker and commercial car parking spaces is an indication of employee car dependency, and as for residential car dependency, symptomatic of how walkable the research catchment is in its urban structure, types of land uses, and the provision of public transport to connect to other areas.

Number of Train Stations

The number of train stations is an indication of train accessibility within the catchment, and train connectivity to external destinations to other catchments.

Number of Tram Stops

The number of tram stops is an indication of tram accessibility within the catchment.

Number of Tram Routes

The number of tram routes is an indication of tram connectivity within the catchment and to other catchments.

Number of Bus Stops

The number of bus stops is an indication of bus accessibility within the catchment.

Number of Bus Routes

The number of bus routes is an indication of bus connectivity within the catchment and to other catchments.
Local land uses

Number of Essential Land Uses* per Neighbourhood
The number of essential land uses accessible within the research catchment (i.e. a 5 minute walk).

Number of Total Land Uses* per Neighbourhood
The total number of land uses accessible within the research catchment (i.e. a 5-minute walk).

Number of Residents per Essential Land Use
To understand the distribution and accessibility of essential facilities and services for residents.

Number of Employees per Essential Land Use
To understand the distribution and accessibility of essential facilities and services for workers.
* For definition of Essential Land Uses see Section 7: Methodology

External spaces

Diversity (No. External Space Types Available)
The diversity of external space types offers an indicator of the degree of choice in locally accessible spaces, and so to what extent external spaces may function to an optimum.

Quantity of Provision (External Space sp.m per Capita)
Quantity of provision per resident and worker was measured to assess the sufficiency of external space provision to fulfil social, environment and economic benefits locally.

Quantity Distribution
This indicator tests how balanced the quantity distribution of all external space types are within walking proximity, and so to what extent external spaces as a system may function to an optimum.

Spatial Distribution
This indicator determines how balanced the spatial distribution of all types of external space are within a 500m walking catchment.

Potential Provision through Future Development
The potential for external space provision through future development (20% of the total area of each potential development site in next 5 years, 2015-2019).
Local Liveability Indicators: Catchments Matrix

The Local Liveability Indicators Catchments Matrix (on the following page) illustrates how the Liveability Indicators relate and compare with each other across the 15 research catchments.

To assess trends and correlations spatially, each individual data set was ranked from highest to lowest performance (green to red) across all catchments (e.g., higher quantity of land uses rank higher, greater number of public transport connections ranks higher).

The colour range reflects the Liveability Indicator’s performance spectrum where green indicates HIGHEST PERFORMANCE outcomes and red indicates LOWEST PERFORMANCE outcomes.

The grouping of similar colour shades within similar geographic areas suggests that individual indicators may be correlated, meaning the variability in one indicator informs the variability of another indicator. As shown in the matrix, different geographic areas tend to inform similar colour schemes (degrees of performance) or most urban structure, land use, local movement and car parking indicators.

The optimisation of the Liveability Indicators as outlined in the Recommendations set out in Section 4 provides scope and direction for future urban growth. The Liveability Indicators could be transformed into a guidance and monitoring tool for achieving integrated, sustainable local neighbourhoods.
<table>
<thead>
<tr>
<th>INDICATOR PERFORMANCE</th>
<th>CENTRAL CITY CATCHMENTS</th>
<th>DOCKLANDS CATCHMENTS</th>
<th>SOUTHBANK CATCHMENTS</th>
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<td>1 Parliament</td>
<td>2 Melbourne Central</td>
<td>3 Flinders Street</td>
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<tr>
<td></td>
<td>57436</td>
<td>46509</td>
<td>51719</td>
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<tr>
<td>POPULATION DENSITY</td>
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<td>Residential population</td>
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</tr>
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<td>Ratio of residents to workers (% of total population)</td>
<td>6% 94% 52% 74% 33% 54% 81% 59% 97% 96% 119% 25% 75% 63% 23%</td>
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<td>Residential gross density (people/hectare)</td>
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<td>Residential net density (people/hectare)</td>
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<td>Employment gross density (people/hectare)</td>
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<tr>
<td>Gross catchment area (square metres)</td>
<td>381323 463322 396512 407583 444763 443389 226386 280759 377051 214336 224058 194716 457003 596302 363645</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net catchment area (square metres)</td>
<td>307796 259032 252414 268788 296972 214911 173669 215905 141495 143265 128388 239457 197575 242065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Open Space (%)</td>
<td>65 66 65 62 60 67 68 49 57 66 64 66 52 50 61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of blocks</td>
<td>48 70 44 48 52 56 56 24 14 25 42 13 24 41 33 21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average length of blocks (m)</td>
<td>83.1 83.1 92.2 30.9 86.7 84.2 102.4 153.8 124.8 78.2 147.6 74.3 102.0 109.5 127.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of intersections</td>
<td>96 109 93 65 83 100 40 18 30 33 17 35 8 39 29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of land parcels</td>
<td>297 441 238 356 331 242 52 30 49 23 7 71 119 57 66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAND USE</td>
<td></td>
<td>354 361 471 148 151 98 13 25 75 60 15 2 52 38 51</td>
<td></td>
</tr>
<tr>
<td>Number of essential land uses</td>
<td>354 361 471 148 151 98 13 25 75 60 15 2 52 38 51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of residents per essential land use</td>
<td>11 19 7 28 46 65 151 105 55 51 69 277 194 111 128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of workers per essential land use</td>
<td>162 129 109 379 92 316 327 455 367 385 1105 580 568 182 421</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of essential and total land uses</td>
<td>399 1379 1383 360 339 427 100 85 201 184 102 12 201 62 162</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential uses / Total uses (%)</td>
<td>35 26 34 41 49 21 13 29 33 15 17 11 61 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCAL MOVEMENT</td>
<td></td>
<td>1 1 1 1 0 1 0 0 0 0 0 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Number of train stations</td>
<td>1 1 1 1 0 1 0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of tram stops</td>
<td>5 14 26 6 2 8 3 10 3 5 0 7 6 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of tram routes</td>
<td>7 16 21 6 2 16 3 5 8 5 6 0 5 10 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of bus stops</td>
<td>6 9 7 3 7 14 2 1 2 0 0 6 4 0 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of bus routes</td>
<td>12 20 12 4 3 12 1 1 3 0 0 3 0 3 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car parks to residents</td>
<td>0.5 0.2 0.1 0.4 0.2 0.4 0.2 0.4 0.2 0.3 0.2 0.3 0.2 0.4 0.3 0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car parks to workers</td>
<td>0.2 0.2 0.2 0.2 0.4 0.2 0.4 0.2 0.7 0.4 0.3 0.2 0.3 0.2 0.4 0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERNAL SPACE</td>
<td></td>
<td>6 8 3 6 6 5 5 7 6 5 3 5 5 5 5</td>
<td></td>
</tr>
<tr>
<td>Diversity of external space (from total of 9 categories)</td>
<td>6 8 3 6 6 5 5 7 6 5 3 5 5 5 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of public external spaces</td>
<td>9 7 7 9 12 7 5 8 11 12 6 4 3 5 5 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of private external spaces</td>
<td>17 23 12 12 8 13 7 9 16 3 10 3 14 14 14 14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Attachment 7: Scenario 2B from p 29 of Pearson (2018)
SCENARIO 2B - FAU FOR AFFORDABLE HOUSING

Parameters

The following parameters have been applied for Scenario 2b:

- Floor area ratio of 5.41, including an FAR of 1.71 for non-residential land uses within each development
- Incorporation of proposed controls in Capital City Zone (Schedule 4), Fishermans Bend Urban Renewal Area Local Policy and Design & Development Overlay (Schedule 67)
- Adherence to the same 3D modelling assumptions as in Scenario 1a (Figure 4.5, page 20)
- Use of proposed street network outlined in Figure 20 of the Fishermans Bend draft Framework
- Achieve 6% affordable housing across the Lorimer Precinct (374 affordable dwellings) through a Floor Area Uplift. This results in a 10.5% affordable housing provision on sites that can accommodate additional yield within the proposed built form controls.
- This will also include 8 market value dwellings for every affordable dwelling provided (approximately 2,992 dwellings).

Figure 4.15: 3D outcome of built form in Scenario 2b, using an FAU to deliver 6% affordable housing across the Lorimer Precinct (equal to 375 dwellings)

*3.5% of total dwellings and 6% of FAR dwellings (excluding recent residential permits)