RE-DISCOVERING THE BAKERY HILL LEGACY

BAKERY HILL AND BRIDGE MALL PRECINCT

URBAN RENEWAL PROJECT

CITY OF BALLARAT

JULY 2019

CITY OF BALLARAT

Acknowledgement of Ballarat's first peoples

The City of Ballarat is proud to acknowledge the Traditional Owners of Country which includes Ballarat today, the Wadawurrung and the Dja Dja Wurrung peoples, and pays respect to all Elders, past, present and emerging, as well as Elders from other communities who reside here today. They hold the memories, traditions, culture and hope of Aboriginal and Torres Strait Islander people around Australia.

Report authors:

Roslyn Rymer and Catherine McLay, City of Ballarat

Section 3, 9 Catherine McLay – Project Officer Heritage and Cultural Landscapes, City of Ballarat

Section 4 Janet Beeston - Conservation Architect, Frontier Heritage

Sections 5-7, 9 Roslyn Rymer - Historic Urban Landscape Researcher, City of Ballarat

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1. ABOUT THIS REPORT

Ballarat locals have told us that our city's history, heritage and distinctive story are highly valued and should underpin and help sustain our city's future.

This report provides an initial look into Bakery Hill's story, how it's evolved culturally, socially and as a local neighbourhood over time and how this change has affected its function.

Bakery Hill is known for its connection with the Eureka story, but it has this and so much more to offer. The area's past is still there today found in the historic structure of the area and the places and features where events and people have existed over time.

A. PURPOSE

By understanding how Bakery Hill has evolved over time and how it currently functions, we can identify opportunities to:

- Uncover and communicate Bakery Hill's unique stories and attributes, enabling locals and visitors to reconnect with the past in new ways
- Renew the area in a totally unique way by building from Bakery Hill's distinctive legacy
- Learn from how Bakery Hill evolved and the characteristics that enabled it to be a vibrant neighbourhood and the changes that may have disrupted this vibrancy over time
- Inform how renewal can occur by understanding how Bakery Hill functions today.

This report will help guide how we can shape Bakery Hill's future as a renewed neighbourhood.

B. THE AREA USED FOR THIS REPORT

Figure 1. Bakery Hill and Bridge Mall Renewal Project study boundary. Study Area for mapping and analysis. This study area varies from that applied by other consultants and in other documents, in order to capture the Ballarat train station, a part of the CBD for context, and a section further east identified by CoB planning and design officers as needing research and guidance.

C. APPLYING A NEW APPROACH - THE 'HUL'

Ballarat is undergoing multiple transformations, driven by population growth, climate change and shifting economics. To address these challenges, the city has partnered with the United Nations Educational Scientific and Cultural Organization (UNESCO) to explore the added value of the Historic Urban Landscape (HUL) approach to tackle these challenges and keep what local people value while further developing their city.[1] This report applies UNESCO's HUL approach as well as principles of sustainable local living.

The HUL helps us evolve Ballarat to be both vibrant and economically viable, while conserving what makes it distinctive and valued. Through the HUL, we see a future where locals celebrate our city's unique identity, drawing on all the things that make us different and set us apart - our character, our culture and our personality. These distinctions will attract investment and drive desirable change into the future.

Additionally, a proposed World Heritage bid for the Central Victorian Goldfields is underway, making the city's heritage an even more valuable part of Ballarat and the region's future.

D. MAPPING BALLARAT RESEARCH PROJECT

The City of Ballarat, with the support of the Victorian Planning Authority is undertaking the Mapping Ballarat project to generate a robust and performance evidence base to guide urban renewal according to UNESCO's HUL approach and City of Ballarat's commitment to 10 minute local access in its plan for 2017-2030.

Sections 2, 5, 6 & 7, form the preliminary research for Bakery Hill. The research for the area covered in this report is still underway, along with Ballarat Central and Lucas. Bakery Hill is an area nominated for urban renewal, Ballarat Central is an established area that would benefit from urban renewal and Lucas as a greenfield site that has applied generic growth area planning for comparison. This research will help form guidelines for each type of area in Ballarat.

1. Adapted from www.hulballarat.org.au

E. LIMITATION TO THIS STUDY

All efforts have been made to present accurate and rigorous research in this paper, but it should be acknowledged that this work is at a very early stage, and, while suitable for this report's purpose, there are limitations to the mapping and analysis presented. The principal limitations are outlined below according the three spatial research streams:

Historic research

- A search for historic maps and images is not complete. Any additional maps and images uncovered may present new evidence that alters findings.
- The waterways have been drafted using historic maps, and so their accuracy and extents have been limited by what was recorded historically.
- Detailed land use mapping over time by applying information from historic street directories has not yet been undertaken. Until then, the primary land uses by block are provided as indicative only.

Pre-contact research

- Research has not started, except for some very preliminary mapping and conversations.

Performance of Bakery Hill 2019

- All existing conditions have not yet been verified onsite.
- Building footprint data has been generated from Street View, and is the most up to date available, but incomplete for the Eastern section of the study area.
- There is no up to date and/or reliable data for building heights, building occupant numbers or land uses.
- The sites excluded / included on each map slightly varies as they have not yet been reconciled across mapping layers in AutoCAD.
- The research methodology requires further assessment according to true walking catchments and comparison across neighbourhoods.
- Methods are to be developed for understanding how buildings may offer opportunities for adaptation to different land uses over time.
- The land use data has been generated using Google Street View information, which may be out of date and only shows apparent land uses. Fieldwork can generate a more up to date map with information above the street level.

2. RECOMMENDATIONS FOR THE RENEWAL OF BAKERY HILL

In developing this report, we can begin to identify some key principles and potential parameters that can be applied for the renewal of Bakery Hill.

PRINCIPLES FOR URBAN RENEWAL:

1. Build on Bakery Hill's legacy

The story

- Bakery Hill is part of an ancient landscape that sustained and provided a refuge for the Wadawurrung people. Its waterways connected places and people and contained the gold that attracted migrants seeking gold and a better life from all over the world. It was here that the sentiment behind the Eureka rebellion thrived, as did the diverse commercial, industrial and residential activity that shaped the built environment we know today.

The structure

- Bakery Hill's urban structure evolved to be intricate and connected although this has eroded over time. Intricate and connected urban structures enable easily walkable neighbourhoods, good diversity of choices (e.g. shops, schools, churches, public transport) within walking distance. These elements brought vibrancy to Bakery Hill as well as creating social and cultural connections. Renewing this legacy can provide a tested way of bringing back life to Bakery Hill.

The built form

- Bakery Hill has a good mix of building eras, including many historical buildings, which we know supports a variety of activities and have adapted over time, existing in times of boom and bust, changing markets and industries. This diverse range of buildings and structures will be one of the keystones to renewal through adaptive reuse to get people back into Bakery Hill. Regeneration through reinstating historic facades, verandahs and traditional signage will be essential in revealing the story.

Figure 2. Bakery Hill map from 1916 (top) and aerial image from 1985 (bottom), City of Ballarat.

2. Lock in adaptability and build more resilience to pressures that have a negative impact on people and the environment

The cultural and natural landscape

- Bakery Hill exists over an area that is a significant cultural landscape for Indigenous peoples and was once woodland and wetlands. Mining and urbanization have removed the complex ecosystems that once existed and changed the waterways from a resource for people and the area's flora and fauna, to a network of engineered drains. The challenges of climate change and increasing recognition of the need to apply traditional knowledge are highlighting the importance of reconnecting the functions of the natural landscape.

Figure 3. Warrenheip Hills near Ballarat, oil on canvas, Eugene Von Guérard, 1854 National Gallery of Victoria.

Figure 4. Ballarat East gold workings, miners cottages & Bricklayers Arms Hotel c1861 by Richard Daintree SLV.

2. RECOMMENDATIONS FOR THE RENEWAL OF BAKERY HILL

People-centred development

- Overtime Bakery Hill has changed from a walkable and well connected neighbourhood to one that prioritised the car. Properties were lost to road widening schemes, car parking appeared as a primary land use, and the establishment of large-scale retail premises. This change disrupted the walkability and diversity of choice for all people living and working in the area. A focus on people-centred development is proven to keep people and continue to attract more people to Bakery Hill into the future.

PARAMETERS FOR URBAN RENEWAL:

The story

- Engage local people and businesses in telling Bakery Hill's stories, to reinforce place identity and connection
- Use an understanding of place and its stories, materials, shapes and colours to inspire and anchor public realm design
- Tell Bakery Hill's stories using innovative and inclusive interpretation mediums as an alternative to traditional signage, to appeal to a more diverse range of visitors and locals (e.g public art)

The structure, built form, natural environment and people-centred development

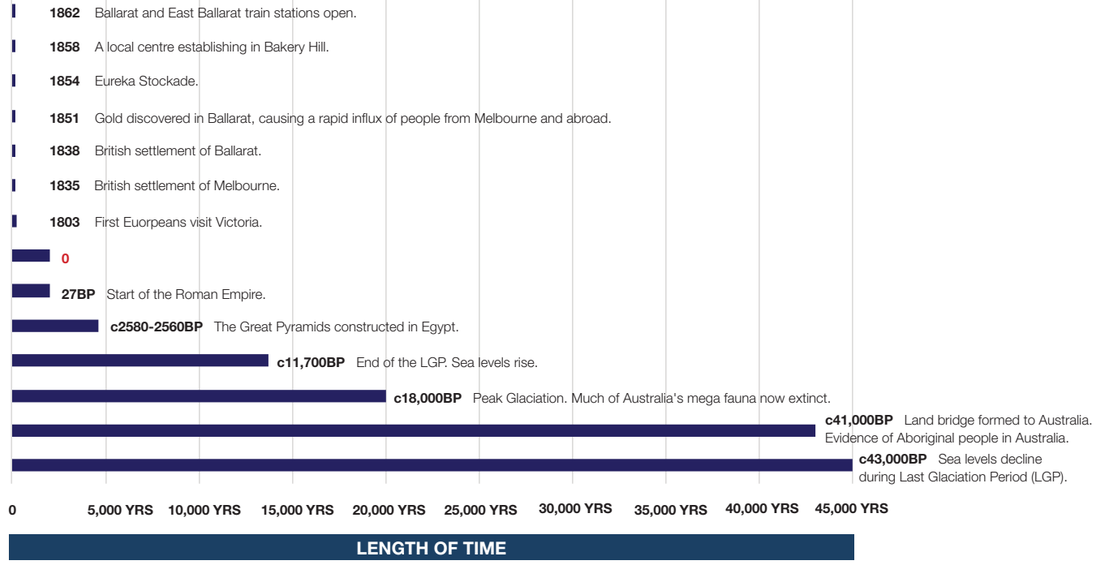
- Maintain a fine-grained urban structure.
- Adapt and re use historic buildings, while allowing for infill growth in a scale appropriate to the established character.
- Focus urban growth on increasing the local population catchment to improve the viability of local land uses and infrastructure.
- Connect neighbourhoods to each other and to primary north-south and east-west links via walking paths, bicycle lanes and public transport.
- Learn from Traditional Owners about the area's culture and identify opportunities to reconnect with it.
- Create attractive landscaped connections that offer shade for people and habitat for fauna, which provide enjoyable and desirable routes between neighbourhoods.
- Plan and design sites for human occupation first and car parking second. There should be no site whose primary function is car parking. All sites should offer a land use that is active and productive.
- Design car parking for future adaptation to other land uses to insure against obsolescence. Building footprint depths and widths will need to be controlled within a maximum range.

Figure 5. Bridge Street Looking East, Ballarat Vic. H32492 slash 6624. State Library of Victoria

3. THE BAKERY HILL STORY SO FAR

The following section presents a framework of overarching historical themes that have contributed to Bakery Hill's personality as we know it: unplanned, colourful and full of wizened charm. By starting to identify the many layers that make up Bakery Hill, we also begin to understand what is distinctive and valued about it that should be carried forward into the future. This collection of stories is designed to inspire and anchor public realm design, regeneration of heritage places and storytelling in the urban renewal of Bakery Hill, acting as a springboard for today's legacy.

SIGNIFICANT DATES



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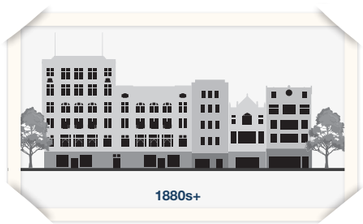
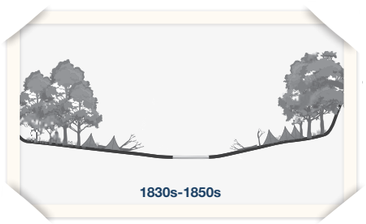
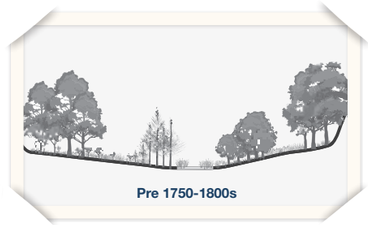






3. THE BAKERY HILL STORY SO FAR

THEME: LIFE ON 'THE FLATS'

Story 1: Seeking gold and a better life

The discovery of gold at Ballarat in 1851 beckoned not only to those seeking fortune, but also those wanting to carve out a new life for themselves and their families. The earliest mining settlements at Ballarat centred around 'the flats' of the Yarrowee River, nestled between the gentle rise of Bakery Hill to the east and the basalt escarpment of what is now Ballarat's CBD to the west. The line between feast and famine on the goldfields was thin indeed.

Here the workday and social life was far less structured, with men shedding all hints of their former lives to dig shafts next to one another. Women too stepped out of their traditional domestic roles to assist with gold digging and run commercial enterprises. The land's traditional owners, the Wadawurrung and Dja Dja Wurrung peoples, were disrupted but – unlike what history commonly tells us – not erased. They bartered goods, shared their traditional skills, took up many different working roles including as Native Police, and helped the newcomers to find the prec ious metal they came for.

Words from/about the time:

'...there were assembled in 1851 thousands of miners who only won the precious metal to squander it in drink and dissipation.' (Illustrated Australian News 5 November 1892: 22)

'This was Poverty Flat, about three quarters of a mile from the spot now occupied by Ballarat; and the hut erected by Dunlop may therefore be considered as the first miner's residence in Ballarat. But, solitary as the place was, they soon found on examination that theirs were not the only habitations erected in this region. Several natives' huts were visible in various places.' (Fred Cahir, Black Gold 2012: 21)

'... The present condition of the aborigines have [sic] no way improved but lamentably deteriorated. The discovery of gold has greatly affected their moral condition... They are now brought to an awful and dangerous state of degradation, so that the speedy extinction of the Melbourne and Moorabool tribes are inevitable.' (W. Thomas, Further Papers relative to the Discovery of Gold in Australia (Parliamentary Papers, Great Britain and Ireland, H.M. Stationary Office, 1853))

Figure 6. Ballarat East Illustration 1893 by David Syme & Co, State Library of Victoria.

Story 2: Transience to permanence

The homes of transient miners sprung up as close as possible to where they were digging, their living quarters ranging from canvas tents to simple cottages built under Miner's Right. Space was so precious that buildings went up irregularly and often in temporary state. These close quarters meant that quickly spreading fires were a common issue.

Unlike other goldrushes the world over, at Ballarat the various stages of gold mining activity sustained it for several decades from the 1850s through to 1920. Wealth generated on the goldfields meant that its ramshackle tents and timber structures gradually made way for permanent buildings, many being impressive structures that represent a palette of local stone and brick. With a growing local population so too came the need for buildings that catered for the social and spiritual needs of the community, including churches of various denominations, schools, hotels and theatres.

Bakery Hill's resulting built character is a catalogue of evolving architectural styles from the early Victorian era up to the present. These buildings provide a valued sense of time depth that reminds locals of the area's mining roots.

Words from/about the time:

'A tremendous conflagration occurred in the Main Road, Ballarat, on Sunday morning. In 50 minutes... 21 'Hotels, stores and dwellings, a large number of outhouses and property, valued together at £25,000, were destroyed... the whole space from the London tavern to Humffray's Street corner was a heap of charred and blackened ruins, surrounded by groups of houseless families, and we fear all but ruined men.' (Mount Alexander Mail 7 December 1859)

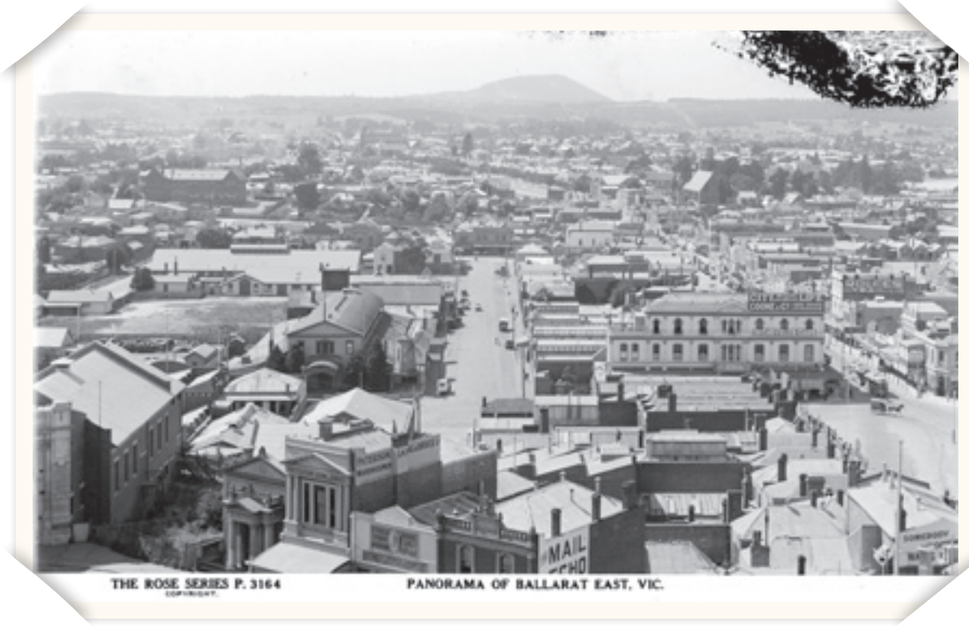


Figure 7. Panorama of Ballarat East, 1920-54. H32492 SLASH 4382, State Library of Victoria

3. THE BAKERY HILL STORY SO FAR

Story 3: Rivalry between East and West Ballarat

The Yarrowee River has always been an important landscape feature for the Wadawurrung people, providing a travel path and giving life to the food bowl that is East Ballarat. For European settlers, the river divided the municipalities of 'old' Ballarat in the east and 'new' Ballarat to the west of Grenville Street. Having been established in 1855 and 1857 respectively, the two municipalities developed a fierce rivalry that delayed their amalgamation – despite the many efficiencies in doing so – until 1921. To this day, they each retain distinctive personalities important to Ballarat's character, once described as a "restless larrikin quality" in the east and "material success" in the west.

Words from/about the time:

'The rivalry between the two municipalities continued... but the East continued to fall behind. Its buildings decayed, often collapsed when a mine shaft opened. Larger in area, more turbulent, its inhabitants were poorer, prouder, with a more numerous Irish stock, and more sympathetic to the aims of Eureka. As West Ballarat became more genteel and family-minded, the East sank into grimier dissipation. Yet for all this, or perhaps because of it, the East had more colour and atmosphere.' (Jacobs, Lewis & Vines Architects 1978:13-14)

'Between the East and the West there has ever been a rivalry and jealous feeling only to be compared to that existing between the Montagues and Capulets. The western portion has completely eclipsed its sister municipality, and while it has grown wealthy and extended on every side, the East has declined and become more and more impoverished.' (Illustrated Australian News 5 November 1892: 22)

'... the tone of the East was strident and individual. It would never willingly be a suburb of Ballarat West. The two co-existed like the head and tail of a coin, looking in different directions and displaying the contrasting imprints of the historical and geographical dies that had made them. Each was a guardian of an aspect of Ballarat's tradition, and the community as a whole was undoubtedly more meaningful and interesting as a result. It might be thought the East was more Australian because it was less subjected to imported urban forms and institutions and had a restless larrikin quality. Yet the West was probably more typical of what British migrants hoped for in Australia – material success...' (Bate 1978, Lucky City: the first generation at Ballarat 1851-1901: 32)

Figure 8. Ballarat from the Town Hall looking East 1872 by William Bardwell, State Library of Victoria.

Story 4: Intercultural melting pot

Those who migrated to Ballarat's goldfields came from a wide range of different places and backgrounds, with as many as 27 different nationalities represented at the 1854 Eureka Stockade. Victoria's goldrush migrants were primarily from Britain and North America but also China, Italy, Germany, New Zealand and many other countries.

These people brought with them distinct ways of life, cultural practices, traditional skills and in many cases, knowledge of mining and specialised mining techniques. Many stayed on to run successful businesses throughout Bakery Hill that drew on these talents, including tentmakers, Chinese apothecaries, tailors, butchers, watchmakers and bricklayers to name just a few. Their presence heavily influenced political and urban development, but also – together with our traditional owners – the social and cultural development of Ballarat as we know it today.

Some groups, especially the Chinese, were subject to racial discrimination, despite making up one in every five males on the Victorian goldfields by the late-1850s. Unlike those involved in the Eureka Stockade, Chinese people on the goldfields did not achieve equality before the law and it was not until after World War 2 that non-white immigration policies were introduced to counter the idea of Australia as an outpost of the former British Empire.

Words from/about the time:

'The Chinese were the group ... who, after the indigenous populations, suffered the most from the hard edge of colonial racism.' (Goodman 1994, Gold Seeking: 21)

'As they dig shafts next to one another, their outward appearance does not signify their previous importance, worth or mental attainments. A colonel pulls up the earth for a sailor; a lawyer wields not a pen but a spade; a priest lends a match to a Negro's pipe; a doctor rests on the same heap of earth with a Chinaman ... Here we are all joined by a common designation: 'digger'.' (Seweryn Korzelinski, Memoirs of Gold-Digging in Australia, translated and edited by Stanley Robe, University of Queensland Press, Queensland 1979: 55)

THEME: BIRTHPLACE OF AUSTRALIAN DEMOCRACY

Story 1: Fighting for opportunity

Having come from various places around the world experiencing overcrowding and social and political upheaval, for migrants, Ballarat and the Australian goldfields generally offered the promise of riches, better weather and the opportunity to own land. Removed from their former lives and professions, in Australia gold seekers were united in their common goal to find gold and a better life. This is where the notion of a 'fair go' now embedded in Australian culture originated.

Influenced by the countries, cultures and political backgrounds they each came from, gold seekers were able to observe, celebrate or criticise life as they saw it on the goldfields. It was in this climate that the sentiments behind the Eureka rebellion thrived. Motivated by opportunity, they were willing to fight for those opportunities.

Words from/about the time:

'Its wider significance, and the reason why it appeals so much to Australians, is that it highlighted things that are ingrained in the Australian temperament – mateship, sympathy for the underdog, refusal to bow to the standover attacks of officialdom.' (Newcastle Morning Herald and Miners' Advocate 4 December 1954: 5)

'I have felt surprise at the repeated denials of the complicity of foreigners in this movement ... in whose traditional feelings, and ignorance of British customs, there was found the reason of the ready appeal to arms.' (The Argus 26 December 1854: 5)

3. THE BAKERY HILL STORY SO FAR

Figure 9. http://wiki.prov.vic.gov.au/index.php/Eureka_Stockade:Bakery_Hill_Meeting_Poster Public Record Office Victoria

Story 2: The makings of a rebellion

Bakery Hill is deeply embedded in the events surrounding Australia's only armed civil uprising, known as the Eureka Stockade. In the early hours of the morning on Sunday 3 December 1854, British soldiers and police attacked the stockade built at Eureka by goldminers and their supporters, who were protesting the restrictive rules around mining, land ownership and the right to vote. The event is considered one of the most significant moments in the development of Australia as a nation and its democracy.

Bakery Hill was the backdrop for several incidents that built tension in the months preceding the December attack. Most significant of these were the murder of miner James Scobie and dissent against the unfair acquittal of his accused killer, as well as a series of Monster Meetings attended by several thousand miners, during one of which they infamously burned their licences and the flag of the southern cross was unfurled for the first time. While there is little or no surviving evidence above ground of the stockade and events associated with it, the Eureka Stockade site and parts of Bakery Hill hold iconic status as backdrops for the rebellion.

Words from/about the time:

'Some five hundred diggers advanced in real sober earnestness, the captains of each division making the military salute due to Lalor, who knelt down, the head uncovered, and with right hand pointing to the standard exclaimed in firm measured tone, "We swear by the Southern Cross to stand truly by each other and defend our rights and liberties". A universal well-rounded "Amen" was the determined reply. Five hundred right hands stretched towards our flag.' (Ballarat Times as quoted in in Bob O'Brien, Massacre at Eureka, The Untold Story, Brown Prior Anderson, Burwood, 1992: 78)

'After the wild gold fever had died down, many people had only come to Victoria with the intention of making a fortune in two or three years, and then return again to the old country, found it more pleasant to make this the land of their adoption and reside here permanently. This at once gave rise to an eager demand for land whereon to plant homes. But it was found that the squatters, as the pastoral tenants were called, were in possession of the best land to no better use than sheep and cattle breeding. This monopoly gave birth to an agitation which resulted in a bloodless revolution as important in its consequences to the future of Victoria as the discovery of gold.' (Illustrated Australian News 25 June 1887:13)

'The subject had been warmly discussed, and it was resolved to hold a public meeting that very night. It was a novel and exciting scene. At the entrance of every tent was a blazing fire, which every now and then shot up a lurid flame, disclosing for a moment the dark figures hovering round it, then sinking, it would leave, the bush in darker obscurity than ever. About eight o'clock, there was an unusual stillness, when from one of the central tents came a voice convening all the gold diggers together. From tent to tent the cry was taken up, until it went the whole round the encampment.' (The Argus 30 August 1851: 2)

Figure 10. Beryl Ireland, hand-coloured photograph of an earlier painting, c.1890. State Library of Victoria's Pictures Collection.

THEME: CONNECTING PLACES AND PEOPLE

Story 1: Getting around

The development of quartz mining in Ballarat during the late-nineteenth century meant that unlike many other gold boom towns, the city continued to grow and prosper. The expanding population placed an increasing demand on public transport within the city, as residential development sprawled outwards from the CBD and retailers sought to live separately from their commercial premises. Cycling was a popular mode of transport in the east especially, where residents tended to be lower income earners and less able to afford vehicles or trams and cabs. Ballarat's earliest cycling club formed in 1879 and remains active today; the east had its own chapter called the 'East End' club.

The east also had its own railway station in Humffray Street, built in the 1860s, shortly after the main station in Lydiard Street. It was closed 100 years on and much of its built infrastructure demolished, with only the original goods sheds, railway gates and tower remaining. Its utility is missed by the local community.

The large horse-drawn cab and bus industry thrived in Ballarat for several decades and a horse-drawn tram network soon followed in 1887. The east's winding, narrow and steep streets made it a poor candidate for a horse-drawn tram network, and so these initially operated only in the west. The electrification of the tram network in 1905 saw the Ballarat East Council negotiate the construction of their own lines, which ran along Bridge and Victoria Streets to Stawell Street and along Main Road and Barkly Street to Cobden Street, Golden Point. The narrowness of Bridge Street often caused traffic bottlenecks and was the scene of frequent accidents between trams and cars or pedestrians. Declining patronage saw Ballarat's entire tram network close in the early 1970s, except for a section of line retained around Lake Wendouree for tourist purposes.

Words from/about the time:

'It seems inconceivable, if not ridiculous, for a populous and somewhat pretentious town as is Ballarat East to remain so many years without this popular mode of street locomotion... But apart from consideration of comfort and economy, there is yet another of scarcely less importance. I allude to the depreciation of house properties situated a little distance from the business centre; a depreciation that has been steadily going on for years past, all owing to the lack of cheap and regular travelling accommodation. It is all very well for the town valuator to make favourable return in high flown official terms, but owners of property know, to their cost, the value of such returns. There is hardly a suburb where you will not find house unoccupied for months at a stretch; and why? Simply because tenants, being unable to reach them in comfort at a moderate cost, and ordinary cab fare being too severe a tax on their income, they are obliged to reside.in the city, paying considerably higher rent than that ruling in the town; being compensated for the difference in the economising of time and a certain degree of comfort the result of the tram system.' (The Ballarat Star 1 November 1892: 4)

Figure 11. Ballarat East H12566, State Library of Victoria

3. THE BAKERY HILL STORY SO FAR

Story 2: Many roads lead to Bakery Hill

Bakery Hill is the confluence of several major entry points into Ballarat from the north, south, east and west. Earliest of these were Victoria Street and Main Road, the historic travel routes to Melbourne and Geelong respectively. Victoria Street in particular provides a great sense of arrival when descending from Woodman's Hill, into a 60metre-wide boulevard and formal plantings fitting of any major city. Incomers were once funneled from the expansive boulevard into Bridge Street, the primary east-west connection thoroughfare through the city.

Historically, Bridge Street, Main Road and Humffray Street made up Ballarat East's core retail area and travel routes, with many surviving buildings from the mid-19th century typifying the retail legacy of the era, with narrow shopfronts and a highly fragmented pattern of subdivision. These streets remained largely unchanged in their functions and form until Bridge Street was closed to vehicular traffic and transformed into a retail mall in 1981, almost ten years after the decommissioning of the tram network. These changes were significant, making the area more outwardly focused as a district destination accessed by car, rather than a hub catering for the everyday needs of nearby residents.

Story 3: View lines

A prominent feature of Ballarat is the undulating topography that affords inward and outward views across the city, including of its skyline and surrounding natural features, particularly the landforms of Mount Buninyong and Warrenheip: a city in the landscape. This makes Ballarat a natural 'bowl' and an ideal resting place for the Wadawurrung people, who have lived year for many thousands of years and used it as a place to bunker down during the harsh winter months.

Miners gathered on the high ground at Bakery Hill for several monster meetings in the lead up to the Eureka Stockade, and it was at one of these that the Eureka flag was first raised. They were clearly visible from the police camp at Camp Street, located on the high basalt escarpment to the west overlooking the goldfields. So too was the site of the Eureka Stockade.

Words from/about the time:

'Just beyond Warrenheip is a place called Kirrit Barreet where Bunjil created Wadawurrung people. That was an old volcano. From there the land on which Ballarat East stands was the centre for the people who live there.'
(Uncle Bryon Powell, Wadawurrung Elder)

Figure 12. Bridge Street, Ballarat, Vic. H96 DOT 200 SLASH 1188, State Library of Victoria.

THEME: UTILISING THE LANDSCAPE

Story 1: Mining for gold

Bakery Hill is intersected by several major gold leads – including the Eureka, Bakery Hill, Old Gravel Pits and Gravel Pits leads – from which miners extracted millions of dollars' worth of gold from the 1850s up to as late as the 1930s. The direction of each lead could be unpredictable and ran as deep as 110 metres in some places, resulting in a landscape pockmarked by mining activity. This remains evident today in Bakery Hill's streets that follow the meandering path of deep leads, along which ad hoc roads and buildings were established. This 'higgledy piggledy' character is highly valued by the community today as a reminder of their mining roots, creating memorable views that change around every corner and from different vantage points in the landscape.

Words from/about the time:

'The [eastern] portion of the district was the scene of the early diggings, as may yet be discerned by the mullock heaps, mud flats and abandoned shafts with which the neighbourhood abounds. The old wooden shanties and huts that did good service, no doubt, during the fifties, have been allowed to rot and rot until whole streets on the skirts of the township present the appearance of ruins.' (Illustrated Australian News 5 November 1892: 22)

'From their 20-ft. shaft, sunk along the roadside in Main Street, in the heart of the rich old goldfields of Ballarat East, a party of five men have won enough gold to give them £4 a week a man... Today they had a washing-off of four buckets of washed dirt, which yielded 4dwts of gold ranging from colours to specs. The washing was watched by 150 people, attracted by the operations which their fathers had carried on 50 years ago.' (Sun 21 June 1931:1)

Story 2: Food bowl

The place now known as Bakery Hill is part of the broader region of Ballarat East, once a 'food bowl' that sustained the Wadawurrung people for many thousands of years, providing water, food, medicine and shelter. Imagine a rich ecological region of grassy plains and forested uplands intersected by creeks and lakes, including the Yarrowee River and its tributaries. Surrounding hills protected the environment, the Wadawurrung people and all the creatures that lived there during the harshness of winter, making it a year-round haven.

The landscape and its traditional owners were forever changed by the arrival of colonists in the 19th century. The Wadawurrung people maintain deep connections to Country and Ballarat East is highly valued by the broader community for its environmental qualities, including remnant ecological corridors, views of surrounding bushland and the peaks of Mount Warrenheip and Buninyong. These qualities help people feel connected to nature and remind them that Ballarat is a city within an ancient landscape.

Words from/about the time:

'The land on which Ballarat East stands is the land that for thousands of years sustained Wadawurrung people. It provided them with water, food and medicine, shelter. It harboured the animals and the birds during winter. It was a place where the surrounding hills protected the environment and all the creatures that lived there.

All around this place was open forests and grassy plains. This bowl was like having a house that was built to live in during winter. It was the resting place – Ballarat.

This place was the centre of the environment for all year. Didn't matter what the weather was like, whether there were droughts or famines – you could come into here and it would sustain us.

The people that live here today have the same opportunity to enjoy the environment, the landscape, the waterways. And to live within the landscape.'
(Uncle Bryon Powell, Wadawurrung Elder)

3. THE BAKERY HILL STORY SO FAR

Story 3: Bridging the Yarrowee

The Yarrowee River runs directly through the Bakery Hill precinct, in a southerly direction slightly east of Grenville Street, from its origins in the hills of Gong Gong. In its natural state prior to European settlement, the Yarrowee was three to four metres wide and its clear water teemed with native river blackfish. It was part of a network of waterways that were travel paths for the Wadawurrung people.

The 1850s' goldrush catalysed substantial change for the river, during which time it was used extensively for alluvial mining and heavily polluted by the new settlement. The Yarrowee is no longer as visible as it once was, much of it and its tributaries having been sealed as bluestone drains during the 1860s. A basic bridge was erected across the Yarrowee River in 1862 at Bridge Street, giving the roadway its name. The width of the bridge is reported to have determined the width of Bridge Street and accordingly, storekeepers built the frontages of their shops to align with it.

Throughout the 1850s and 1860s, floods regularly plagued Bridge and Main Street retailers and in the 1860s engineering works were carried out to raise the level of the street, up to six feet in some places.

Words from/about the time:

'The waterways were the travel paths. The movement from the centre of the bowl up to the top of the hills.

It was a place that during the harshness of winters it protected the old people.' (Uncle Bryon Powell, Wadawurrung Elder)

'When the Fathers have thought out the matter they will one of these days astonish the commonwealth by wiping out the Yarrowee – bury it in a tunnel. Start silent steam motors running east and west through a united Ballarat. Gladden our hearts with the electric light; and have but one lord (mayor), one treasury and – no Yarrowee.'
(Ballarat Star, 24 November 1892: 4)

'For over an hour there was a continuous downpour, the heaviest that has been seen in Ballarat for a long time past... During this time the electric discharges were terribly vivid, and the thunder peals were breaking closely over the city, striking terror and dismay. The elevated position of the western portion of the city saved it from being flooded, but the fast collecting waters poured down in muddy torrents into the flat, and the flood eventually rose in portions of Main Street to a height of 3 to 4 feet, filling many of the houses and causing very extensive damages.' (Mercury 23 November 1881:3)

'Ballarat East has experienced so much trouble on previous occasions with storm water that special pains have been taken to make channels of sufficient width and depth to cope with heavy rainfall, but these precautions were utterly unavailing in the case of yesterday's storm... The full force of the storm was felt in the lower portions of the Main Road...'
(Ballarat Star 15 November 1901:6)

Figure 13. Building the Wills Street bridge deck in 1926. (Image source: City of Ballarat)

THEME: EPICENTRE OF THE EAST

Story 1: A thriving commercial precinct

Bridge Mall and Bakery Hill are the oldest commercial retail areas in Ballarat, located in the river flats of Yarrowee River. This centred predominantly around Main Road and Bridge Street, boasting a range of hotels, shops, services and entertainment venues that catered to every need of those engaged in the surrounding mining activity. The profits generated from the sale of services and goods from the many commercial and r etail ventures stretched along the length of Main Road from Bridge Street in the north through to Golden Point in the south were often reinvested among small co-operatives of miners. This helped to facilitate the commercial cooperation between miners and storekeepers that was so crucial while exploration of the Ballarat goldfields continued.

The continuing commercial activity along Bridge Mall and Bakery Hill are an important reminder of its early role as a flourishing commercial and retail thoroughfare. The area's commercial buildings are also associated with continuing commercial developments from the 1860s and into the early decades of the twentieth century.

Words from/about the time:

'If there was a shortage of respectable women [in East Ballarat], there was an abundance of drink. Perhaps one in four buildings was a hotel, and one publican was reputed to have 122 directly or indirectly in his control.'
(Jacobs, Lewis & Vines Architects 1978:11)

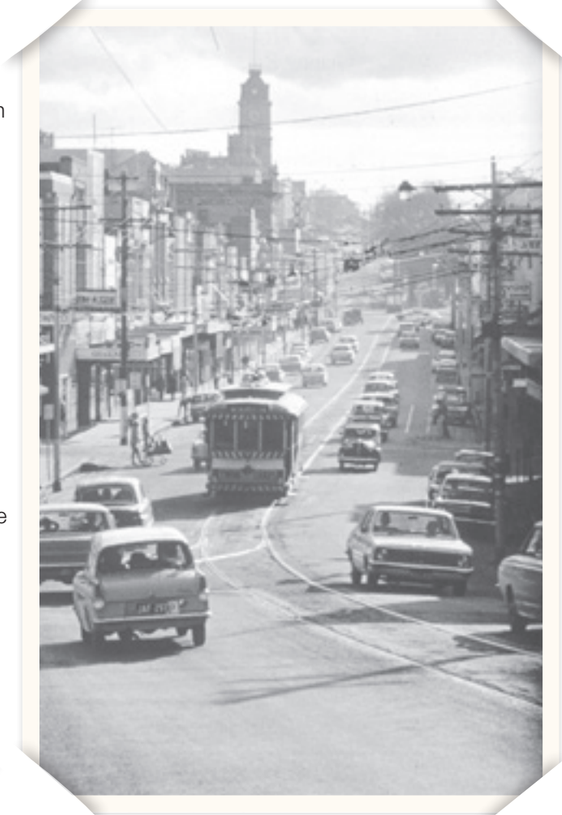


Figure 14. Bradley p90.

3. THE BAKERY HILL STORY SO FAR

Story 2: Civic heart

The East's integrated social and commercial system helped to create a framework that made it one of the first areas of Ballarat to gain municipal status. Despite the many difficulties associated with its development on the main alluvial diggings site, in February 1857 sale of freehold land in Main Road provided the basis for ratepayers to elect a local government and form the municipality of Ballarat East that same year.

Plans began shortly afterwards for a collection of civic and cultural buildings in Barkly Street and Main Road including a town hall and gardens, police court, fire station, post office, mechanics institute, museum and public library. These were constructed on one of the highest points in the landscape, affording commanding views of mining activity along the Yarrowee below.

These buildings are a tangible and valued reminder of the East's sense of itself as a community that evolved separately from Ballarat West for its early years. The local community feels the absence of a civic heart for the east since its civic places have ceased to be used as such.

These included places for worship, education and entertainment that catered for the many and diverse communities who had made Ballarat their home.

Words from/about the time:

'The town council and the Government favoured a site [for the Ballarat East Post Office] at the corner of Victoria and Humffray streets, but the other party persistently championed the merits of the site at the intersection of the latter street and the Main Road. Finally, after much warmth of feeling had been exhibited, the question was referred for decision to a poll of ratepayers, with the result that the Main Road party came out triumphant.'
(The Age 21 June 1884:10)

'The new town hall (1861 demolished 1949) with its later formal botanic garden glasshouse and fernery was a symbol of order and civilization in contrast with the ad hoc transient nature of life on the diggings. The associated civic buildings incorporated the full range of facilities symbolic of cultivated European society in the nineteenth century inclusive of a museum and library for education and self-improvement and a police court as an instrument of law and order.'
(Ballarat East Civic Heritage Precinct citation)

Story 3: Creating order from chaos

Unplanned roads meandered across the landscape, connecting the mining claims and creating a haphazard urban form that Bakery Hill retains today and is highly valued by its community.

Where surveyors of west Ballarat could plan streets in an orderly manner, in 'the flats' they were forced merely to confirm the scatter of early road networks, in many cases introducing new street alignments that forced property owners to move their shops and residences back, out of the street. Many residents wrote letters to various local newspapers during the 1850s, demanding that the recently completed government survey be enforced and "trespassers'" properties be moved from the roadway so that footpaths could be completed. The poor condition and drainage of streets in the area is evident in the use of planks of timber over the muddiest sections of road, used as makeshift bridges for women to cross without muddying their attire.

Words from/about the time:

'Until the whole of the [Main Road] is made the required width, and these trespassers — for trespassers they now are — removed, there can be no continuous footway, the necessity for which no one will deny. It is almost impossible to pass along the road without being in imminent danger from horses' heels or bullocks horns. If on the footway, most probably you must step off to pass a horse standing across, and just as you do this 10 to 1 you find yourself running against a team of bullocks, and, to escape them, get over the ankles in mud, or step upon a loose slab in a platform, which tips up with your weight and tips you down!'
(The Star 13 March 1857:5)

Figure 15.

4. HERITAGE REGULATORY FRAMEWORK

Historic themes, such as those in the previous section can also be used to form an understanding of heritage significance for protection in the planning scheme. The following is an outline of what is recognised as significant and protected through regulatory mechanisms today.

1.0 State heritage places

These places have been identified as being of heritage significance to the State of Victoria and are included on the Victorian Heritage Register (VHR) as well as the Heritage Overlay Schedule (HO).

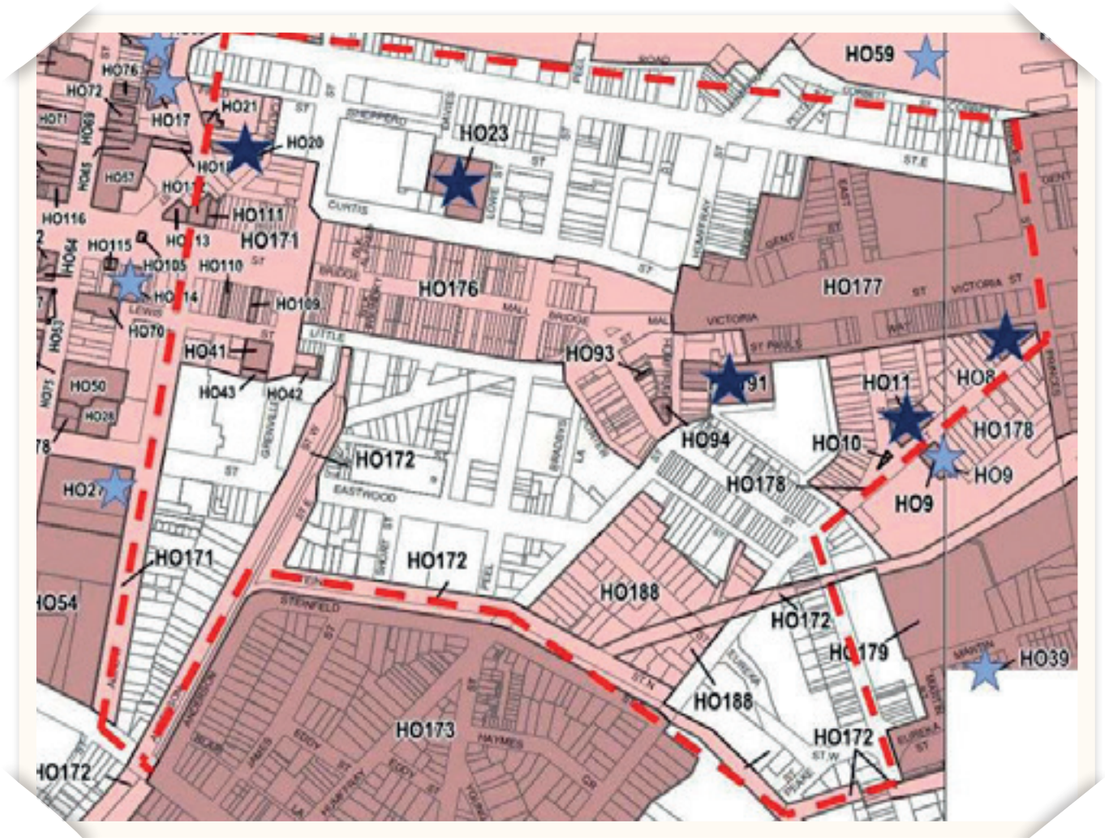
There are 5 places within the study area that are included on the Victorian Heritage Register (identified by dark blue stars on map below).

H08 Synagogue, 2-4 Barkly Street (VHR H106)
H011 Ballarat East Fire Station, 20-22 Barkly Street (VHR H1001)
H020 Ballarat Trades Hall, 24 Camp Street (VHR H657)
HO23 Former Ranger Barracks, 1-61 Curtis Street (VHR H1949)
HO191 St Pauls Anglican Church, 3 Humffray Street (VHR H401)

Bordering the study area there are a number of places that are also included on the Victorian Heritage Register. These places are identified on the map above by the light blue stars.

★ **State listed heritage places within study area**

★ **State listed heritage places bordering study area**



2.0 Local heritage individual places

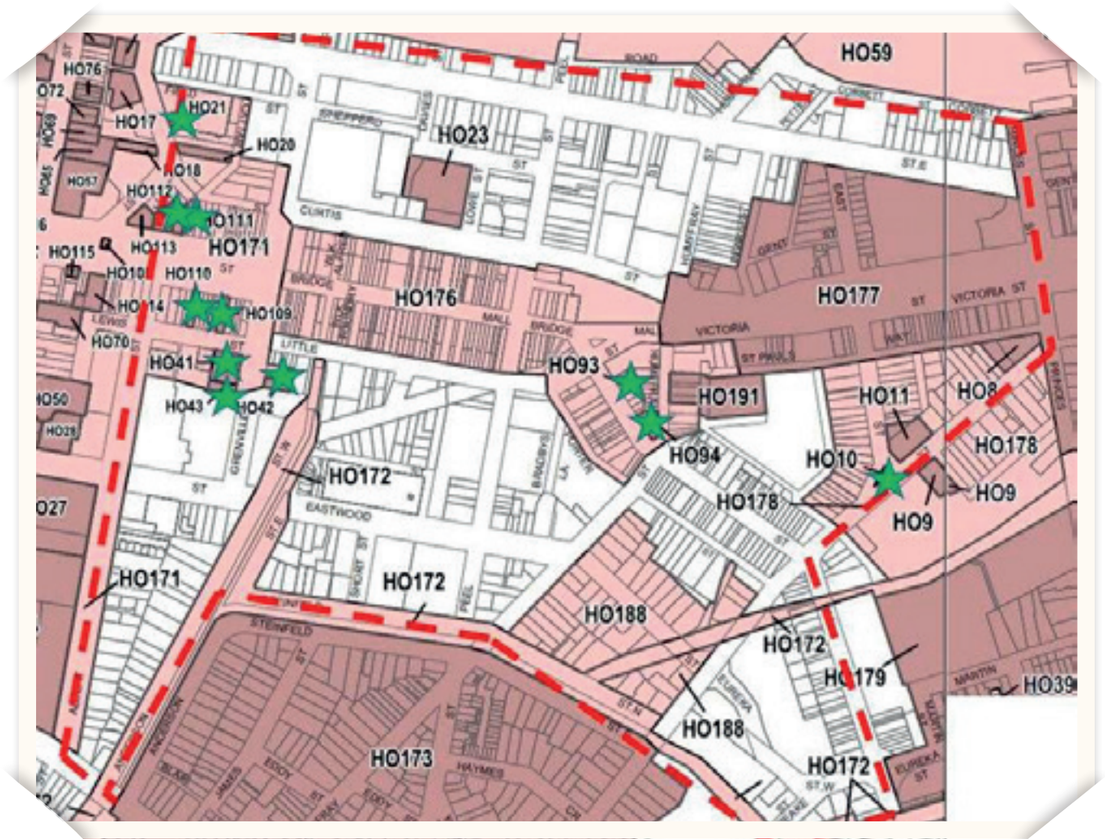
These individual places have been identified as being of heritage significance to the City of Ballarat and are included on the Heritage Overlay Schedule (HO).

There are 11 individual places within the study area that are included on the Heritage Overlay Schedule.

H010 Lamp Post, intersection of Barkly and East Sts
H021 Terraces, 30-32 Camp Street
H041 Fmr Water & Sewerage Authority Offices, 6 Grenville Street
HO42 Manchester Unity Hall, 9 Grenville Street
HO43 Fmr Protestant Hall, 10 Grenville Street
HO93 Fmr Titheridge and Growcott, 15-19 Main Road
HO94 Ballarat East Post Office, 21 Main Road
HO109 Union Hotel, 11 Sturt Street
HO110 Fmr The Log Tavern, 23 Sturt Street
HO111 Camp Hotel, 36-38 Sturt Street
HO112 Fmr Chamber of Commerce, 42-46 Sturt Street

Bordering the study area, predominantly to the west, there are a number of places that are identified as being of individual significance. These places are generally within the CBD area.

★ **Individual places included in the heritage overlay**



4. HERITAGE REGULATORY FRAMEWORK

3.0 Local heritage precincts

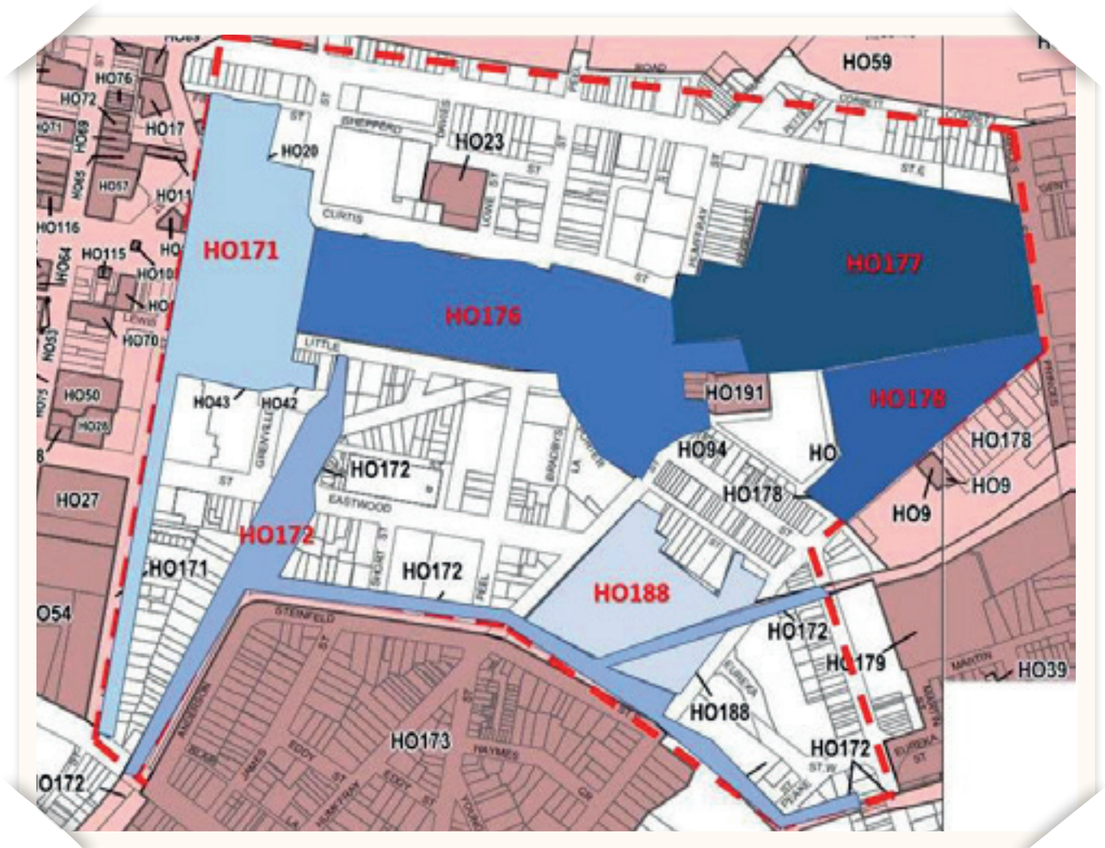
There are six precincts within the study area that have been identified as being of heritage significance to the City of Ballarat and are included on the Heritage Overlay Schedule (HO).

Within each of the precincts, the individual sites have been assessed as being **contributor**y to the significance of the precinct or **not contributory** to the significance of the precinct. The precincts are –

HO171 Lydiard Street Precinct
HO172 Creeks and River Channel Precinct
HO176 Bridge Mall / Bakery Hill Precinct
HO177 Victoria Street Precinct
HO178 Ballarat East Civic Heritage Precinct
HO188 Barkly Street / Humffray Street South Precinct

It is noted that the precincts extend beyond the study area with the exception of HO176 Bridge Mall / Bakery Hill and HO188 Barkly Street / Humffray Street South precincts which are fully contained within the study area. For the other precincts, only the area within the study boundaries is shown.

Precincts HO173 (Mount Pleasant / Golden Point) to the south and HO179 (Eureka Street) to the east abut the study area boundaries.



3.1 (Part) HO171 Lydiard Street precinct

The Lydiard Street Precinct extends beyond the boundaries of the study area.

Within this precinct there are a number of places which have been assessed as being NOT contributory to the precinct. The list is extensive and is attached to the Statement of Significance for the precinct which can be viewed online. All places within the precinct which are not listed are considered to be prima facie contributory to the significance of the precinct.

3.2 (Part) HO172 creeks and river channel precinct

The Creeks and River Channel Precinct extends beyond the boundaries of the study area.All places within the precinct are considered to be contributory to the significance of the precinct.

3.3 HO176 Bridge Mall / Bakery Hill precinct

The Bridge Mall / Bakery Hill Precinct is fully contained within the boundaries of the study area. Within this precinct there are a number of places which have been assessed as being NOT contributory to the precinct. The list is extensive and is attached to the Statement of Significance for the precinct which can be viewed online. All places within the precinct which are not listed are considered to be prima facie contributory to the significance of the precinct.

3.4 (Part) HO177 Victoria Street precinct

The Victoria Street Precinct extends beyond the boundaries of the study area. Within this precinct there are a number of places which have been assessed as being NOT contributory to the precinct. The list is extensive and is attached to the Statement of Significance for the precinct which can be viewed online. All places within the precinct which are not listed are considered to be prima facie contributory to the significance of the precinct.

3.5 (Part) HO178 Ballarat East civic heritage precinct

The Ballarat East Civic Precinct extends beyond the boundaries of the study area.

Within this precinct there are a number of places which have been assessed as being NOT contributory to the precinct. The list is extensive and is attached to the Statement of Significance for the precinct which can be viewed online. All places within the precinct which are not listed are considered to be prima facie contributory to the significance of the precinct.

3.6 HO188 Barkly Street / Humffray Street South precinct

The Barkly Street / Humffray Street South Precinct is fully contained within the boundaries of the study area. Within this precinct there are a number of places which have been assessed as being NOT contributory to the precinct. The list is extensive and is attached to the Statement of Significance for the precinct which can be viewed online.

All places within the precinct which are not listed are considered to be prima facie contributory to the significance of the precinct.

5. BAKERY HILL'S EVOLUTION AS A LOCAL NEIGHBOURHOOD (1850'S - 2019)

EVOLUTION AS A LOCAL NEIGHBOURHOOD INTRODUCTION AND 2019

Introduction

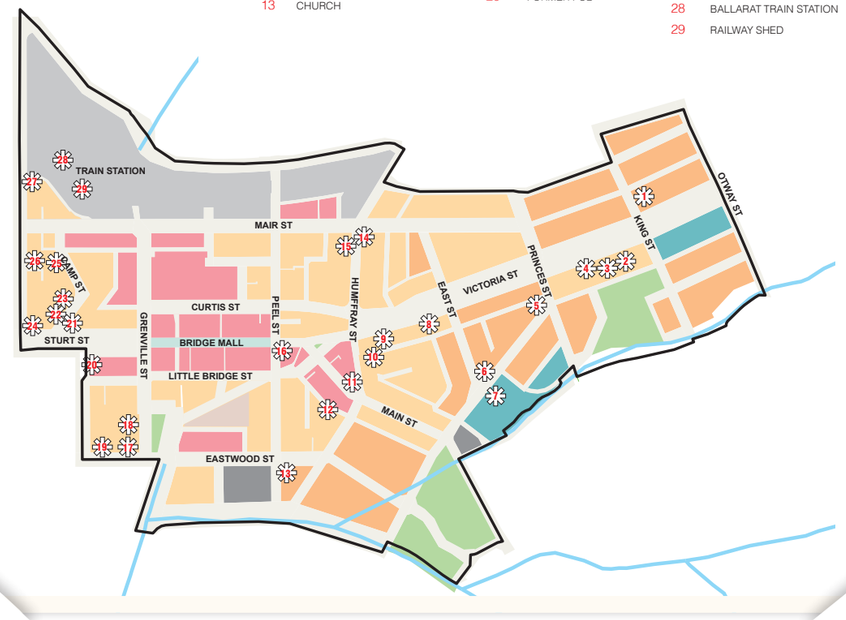
The following pages present our very early work on how Bakery Hill has changed over time according to its basic urban conditions: street network, street names, land uses, public transport and waterways. The landmark buildings, those structures that feature prominently either physically or as culturally and socially significant sites, are also mapped. Ongoing skyline work will inform these sites as the modelling progresses.

Each map and associated text summarises the principal changes that have occurred between one time period and the next, intentionally working backwards from the most familiar time period to us all, 2019, to the least familiar of the pre 1860s.

Existing conditions in 2019

The opposite page presents the general existing conditions for Bakery Hill in 2019, with the primary land uses for each block shown.

1 141 VICTORIA ST (FORMER SCHOOL?)
2-4 ST. ALIPIUS CHURCH, SCHOOL AND PRESBYTERY
5 SYNAGOGUE
6 EAST BALLARAT FIRE STATION
7 FORMER SCHOOL
8 BALLARAT COMMUNITY HEALTH (FORMER KINDER?)
9 CHURCH HALL
10 CHURCH
11 FORMER POST OFFICE
12 CHIMNEY STACK
13 CHURCH
14 PUB
15 FORMER SCHOOL
16 FORMER PUB
17-18 NEW COURTHOUSE
19 NEW POLICE STATION
20 FORMER PUB
21-23 GOVERNMENT OFFICE
24 FORMER GPO
25 FORMER GOVERNMENT OFFICE/RESIDENCE
26 ART GALLERY
27 HOTEL
28 BALLARAT TRAIN STATION
29 RAILWAY SHED



CHANGES:
LAND USES
STREETS
PUBLIC TRANSPORT
WATERWAYS
OTHER

URBAN FEATURES:
STREETS PRESENT
STREETS NEW
STREETS GONE
STREETS UNSURE
LANDMARK
TRAMS
WATERWAYS
DRAINS/CHANNELS

INDICATIVE PRIMARY LAND USES BY BLOCK:
MIXED (E.G. RESIDENTIAL / RETAIL / COMMERCIAL)
RESIDENTIAL
RETAIL
COMMERCIAL
EDUCATION
OPEN SPACE
MALL
CAR PARKING
INDUSTRIAL
MINING
TRANSPORT
OTHER

(SOURCES: WATERWAYS CoB GIS; STREETS CoB GIS; LAND USES Google Earth).

EVOLUTION AS A LOCAL NEIGHBOURHOOD 1980-90'S

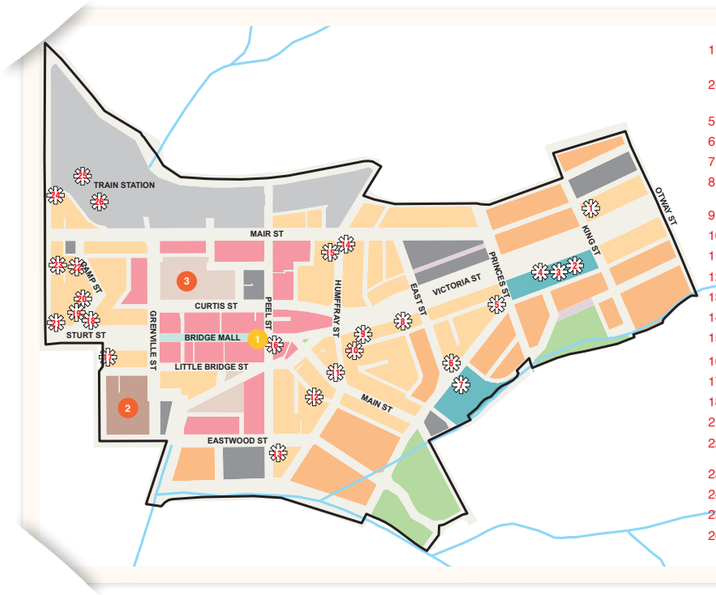
Changes between 2019 + 1980's-90's

This page presents Bakery Hill in the 1980s-1990s, with those changes that occurred between 2019 and the 1980s-90s highlighted.

1. Bridge Mall is first constructed during this period, according to a trend by Victorian cities to establish car-free retail malls, as they come to terms with competition from new shopping centres. Bridge Mall is opened in the same years as Melbourne's Bourke Street Mall, in 1981 (the Geelong Mall opens a few years later in 1985). Ballarat's mall is closed to all traffic except pedestrians.[1]
2. The gasworks site has not yet been redeveloped to State uses, including court house and police station.
3. The current Big W site functions as a car park until redevelopment in the 1990s.

1. The impacts of closing Bridge Street to traffic, and shifting its offer from local essential daily needs to higher-end retail, will become apparent through our research into Bakery Hill's history and current performance as part of local neighbourhoods.

Image of Bridge St looking west, c.1990s-2000s. This aerial photo looking over Bridge Mall shows the rich variegation in built form (see the rooftops) and the contrast with the width and design of Sturt Street (background). (SOURCE: CoB)



1 141 VICTORIA ST (FORMER SCHOOL?)
2-4 ST. ALIPIUS CHURCH, SCHOOL AND PRESBYTERY
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13 CHURCH
14 PUB
15 FORMER SCHOOL
16 FORMER PUB
17 FORMER PUB
18-20 GOVERNMENT OFFICE
21 FORMER GPO
22 FORMER GOVERNMENT OFFICE/RESIDENCE
23 ART GALLERY
24 HOTEL
25 BALLARAT TRAIN STATION
26 RAILWAY SHED

CHANGES:
LAND USES
STREETS
PUBLIC TRANSPORT
WATERWAYS
OTHER

URBAN FEATURES:
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STREETS NEW
STREETS GONE
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RESIDENTIAL
RETAIL
COMMERCIAL
EDUCATION
OPEN SPACE
MALL
CAR PARKING
INDUSTRIAL
MINING
TRANSPORT
OTHER

(SOURCES: WATERWAYS ViCRoads Country Directory First Edition, 1992; STREETS ViCRoads Country Directory First Edition, 1992; LAND USES CoB Officers and Country Roads Board Aerial Photos 81.5671.1 and 81.5671.9).

5. BAKERY HILL'S EVOLUTION AS A LOCAL NEIGHBOURHOOD (1850'S - 2019)

EVOLUTION AS A LOCAL NEIGHBOURHOOD 1960'S

Changes between 1980's-90's + 1960's

The opposite page presents Bakery Hill in the 1960s, with those changes that occurred between the 1980s-90s and 1960s highlighted.

1. There is a tram service running east-west and north-south; Bridge Mall is a local high street connected via tram and road. The tram network is decommissioned in 1972, with tracks removed that preclude an easier transition back to fixed rail public transport in the future.
2. There appears to be more industrial sites compared to the 1980s-90s, which aligns with land use trends in Victoria for a decline in productive activities throughout the 20th century.
3. There are a number sites with land either featuring, or reserved for, schools.
4. Residences are situated on the Coles and Woolworths sites.
5. A number of changes occur to street alignments to accommodate east-west traffic from and to Melbourne. In particular, Little Bridge St appears to have been widened, as the street is half the width of that in the 1960s. Victoria St is widened by cutting through existing blocks to connect to Curtis St and Little Bridge St.
6. The waterways are in channels marked as "drains", illustrating the typical approach to controlling waterways at the time.

1	141 VICTORIA ST (FORMER SCHOOL?)	10	CHURCH	18-20	GOVERNMENT OFFICE
2-4	ST. ALIPIUS CHURCH, SCHOOL AND PRESBYTERY	11	FORMER POST OFFICE	21	FORMER GPO
5	SYNAGOGUE	12	CHIMNEY STACK	22	FORMER GOVERNMENT OFFICE/RESIDENCE
6	EAST BALLARAT FIRE STATION	13	CHURCH	23	ART GALLERY
7	FORMER SCHOOL	14	PUB	24	HOTEL
8	BALLARAT COMMUNITY HEALTH (FORMER KINDER?)	15	FORMER SCHOOL	25	BALLARAT TRAIN STATION
9	CHURCH HALL	16	FORMER PUB	26	RAILWAY SHED
		17	FORMER PUB		

CHANGES:
- LAND USES
- STREETS
- PUBLIC TRANSPORT
- WATERWAYS
- OTHER

URBAN FEATURES:
- STREETS PRESENT
- STREETS NEW
- STREETS GONE
- STREETS UNSURE
- LANDMARK
- TRAMS
- WATERWAYS
- DRAINS/CHANNELS

INDICATIVE PRIMARY LAND USES BY BLOCK:
- MIXED (E.G. RESIDENTIAL / RETAIL / COMMERCIAL)
- RESIDENTIAL
- RETAIL
- COMMERCIAL
- EDUCATION
- OPEN SPACE
- MALL
- CAR PARKING
- INDUSTRIAL
- MINING
- TRANSPORT
- OTHER

EVOLUTION AS A LOCAL NEIGHBOURHOOD 1930'S

Changes between 1960s + 1930s

The opposite page presents Bakery Hill in the 1930s, with those changes that occurred between the 1960s and 1930s highlighted.

There appears to be very little change in this period, which may be due to the recession (1929), WWII (1939-1945), and post WWII shortages in building materials and rationed fuel (until the 1950s).

1. There is a Ballarat East train station, with evidence of a change in street alignments and blocks in association with the station.
2. There is a Synagogue on the corner of Princes St, providing some little evidence of cultural diversity in Bakery Hill.

Postcard of Bridge St looking east, c1920-1954. This postcard shows Bridge St as a busy local high street with pedestrians, cyclists, motorists and delivery carts. (SOURCE: State Library of Victoria, Accession No. H32492/2433).

1	141 VICTORIA ST (FORMER SCHOOL?)	8	CHURCH HALL	15-17	GOVERNMENT OFFICE
2-3	ST. ALIPIUS CHURCH, SCHOOL AND PRESBYTERY	9	CHURCH	18	FORMER GPO
4	SYNAGOGUE	10	FORMER POST OFFICE	19	FORMER GOVERNMENT OFFICE/RESIDENCE
5	EAST BALLARAT FIRE STATION	11	CHIMNEY STACK	20	ART GALLERY
6	FORMER SCHOOL	12	PUB	21	HOTEL
7	BALLARAT COMMUNITY HEALTH (FORMER KINDER?)	13	FORMER SCHOOL	22	BALLARAT TRAIN STATION
		14	FORMER PUB	23	RAILWAY SHED

CHANGES:
- LAND USES
- STREETS
- PUBLIC TRANSPORT
- WATERWAYS
- OTHER

URBAN FEATURES:
- STREETS PRESENT
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- STREETS UNSURE
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- COMMERCIAL
- EDUCATION
- OPEN SPACE
- MALL
- CAR PARKING
- INDUSTRIAL
- MINING
- TRANSPORT
- OTHER

5. BAKERY HILL'S EVOLUTION AS A LOCAL NEIGHBOURHOOD (1850'S - 2019)

EVOLUTION AS A LOCAL NEIGHBOURHOOD 1900'S

Changes between 1930's + 1900's

The opposite page presents Bakery Hill in the 1900s, with those changes that occurred between the 1930s and 1900s highlighted.

1. Maps show the Sturt St tram line terminating at Grenville St before reaching Bridge St, while photos in the early 1900s show the tram running through Bridge St.
2. There is a market on the current Big W site, north of Bridge St.
3. The eastern section of Mair St was called Wills St.
4. Eastwood St may have run diagonally rather than straight at its eastern end.

Looking east to Bakery Hill, c1890-1901. This image shows Bakery Hill as an established neighbourhood and Bridge St clearly distinguished from western Ballarat (in the foreground) by its street width. (SOURCE: State Library of Victoria, Accession No. H2002.130/11)

EVOLUTION AS A LOCAL NEIGHBOURHOOD 1860'S

Changes between 1900's + 1860's

The opposite page presents Bakery Hill in the 1860s, with those changes that occurred between the 1900s and 1860s highlighted.

1. Bakery Hill appears to be a developing township with a number of reserves including the: Railway Terminus Reserve in the location of the current Ballarat Train Station; Police Reserve on Lydiard and Camp Sts; Eastern Market Reserve on the current Big W site; General Market Reserve on Main St, and a Baths and Wash House Reserve opposite; Town Hall Reserve on Main and Barkly Sts; Fire Brigade Reserve on the current historic Fire Station site; and St Paul's Reserve on the historic St Paul's site.
2. The post office has established on the historic GPO site, north east corner Lydiard and Sturt Sts.
3. A bank is located on Camp and Sturt Sts.
4. There is no tram network yet.
5. It appears that there are drainage channels along similar alignments to future streets.[1] E.g. a drain in this period becomes the future Channel St. "Sludge Channels" and "Future Sludge Channels" are shown in the 1860s mapping, pointing to issues with drainage (and possibly sewerage), which were no doubt exacerbated by development of the emerging township that would have seen rapid growth in population and mining activities.

Ballarat east gold workings and miners cottages, 1861, by Daintree. The landscape south of Bridge Street showing mining and miner's tents/cottages. Note the pools of water and disturbed landscape. (SOURCE: State Library of Victoria, Accession No. H36597)

5. BAKERY HILL'S EVOLUTION AS A LOCAL NEIGHBOURHOOD (1850'S - 2019)

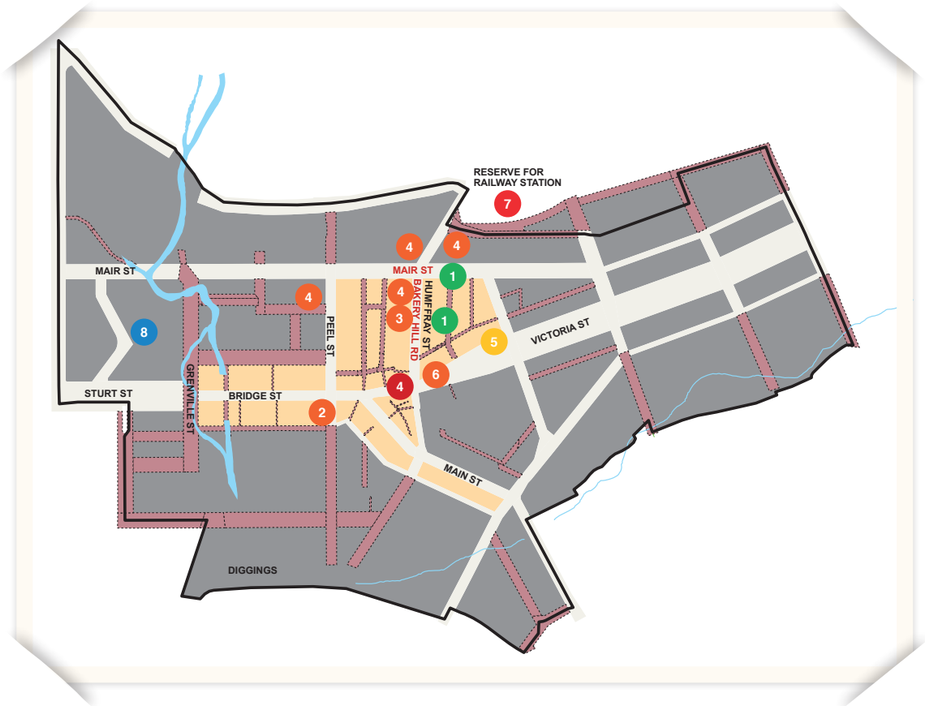
EVOLUTION AS A LOCAL NEIGHBOURHOOD PRE 1860'S

Changes between 1860's and pre 1860's

This page presents Bakery Hill before the 1860s, with those changes that occurred between the 1860s and prior to the 1860s highlighted.

1. Many streets and lanes do not yet exist. Wills St has returned to being named Mair St. Humffray St is called Bakery Hill Rd in some maps.
2. There is a distinct local centre establishing along Bridge St, Main St and Humffray St. Maps from 1857 and 1858 show surveyed lots and early businesses including a bakery, doctor, hall, timber yard, printing office, Temperance Hall, and bank.
3. There is a National School on Humffray St, with what appear to be residences in Humffray St, Peel St and Mair St.
4. Hotels are already evident including the: Imperial Hotel; Prince of Wales Hotel; Odd Fellow Arms; Bakery Hill Hotel; Sir William Wallace Hotel
5. St Paul's Parsonage is on the northern side of Victoria St.
6. A Market Reserve is located on Victoria and Humffray Sts.
7. There is a reserve for a railway station.
8. The waterways appear to have little to no channeling and other forms of drainage control.

Goldgewinnung auf einem australischen Goldfeld, 1858. Ballarat was emerging as a Colonial settlement, its landscape being radically transformed by mining for gold, including at diggings around Bakery Hill, which some of these vignettes depict. Emerging shops, hotels, a school and other land uses offerred provisions, refreshment, accommodation and services to the settlers. (SOURCE: State Library of Victoria, Accession No. H99.73)



CHANGES FROM PRE 1860'S TO 2019

The changes that have so far been identified suggest a pattern of change typical of many Victorian towns and suburbs, but distinguished by very early and rapid growth in association with the Gold Rush and then property boom.[1]

From the pre 1860s:

Bakery Hill quickly became urbanised, developing greater complexity as new streets, blocks, properties, buildings and land uses established.

↓

Bridge St, Main St and Humffray St emerged as the centre of the new township. Bridge St essentially remained unchanged in its functions and form until it was transformed into a retail mall in 1981.

↓

Residences, shops, hotels/pubs, schools, and services established around the centre, spreading eastward and southwards with time.

↓

From the 1960s, a different pattern in urban changes started to occur, which prioritised the car and a more organised sub-urban rather than complex urban place. Properties were lost to road widening schemes, car parking appeared as a primary land use, and site consolidation removed fine-grained residential blocks to make way for big box retail and their car parks.

↓

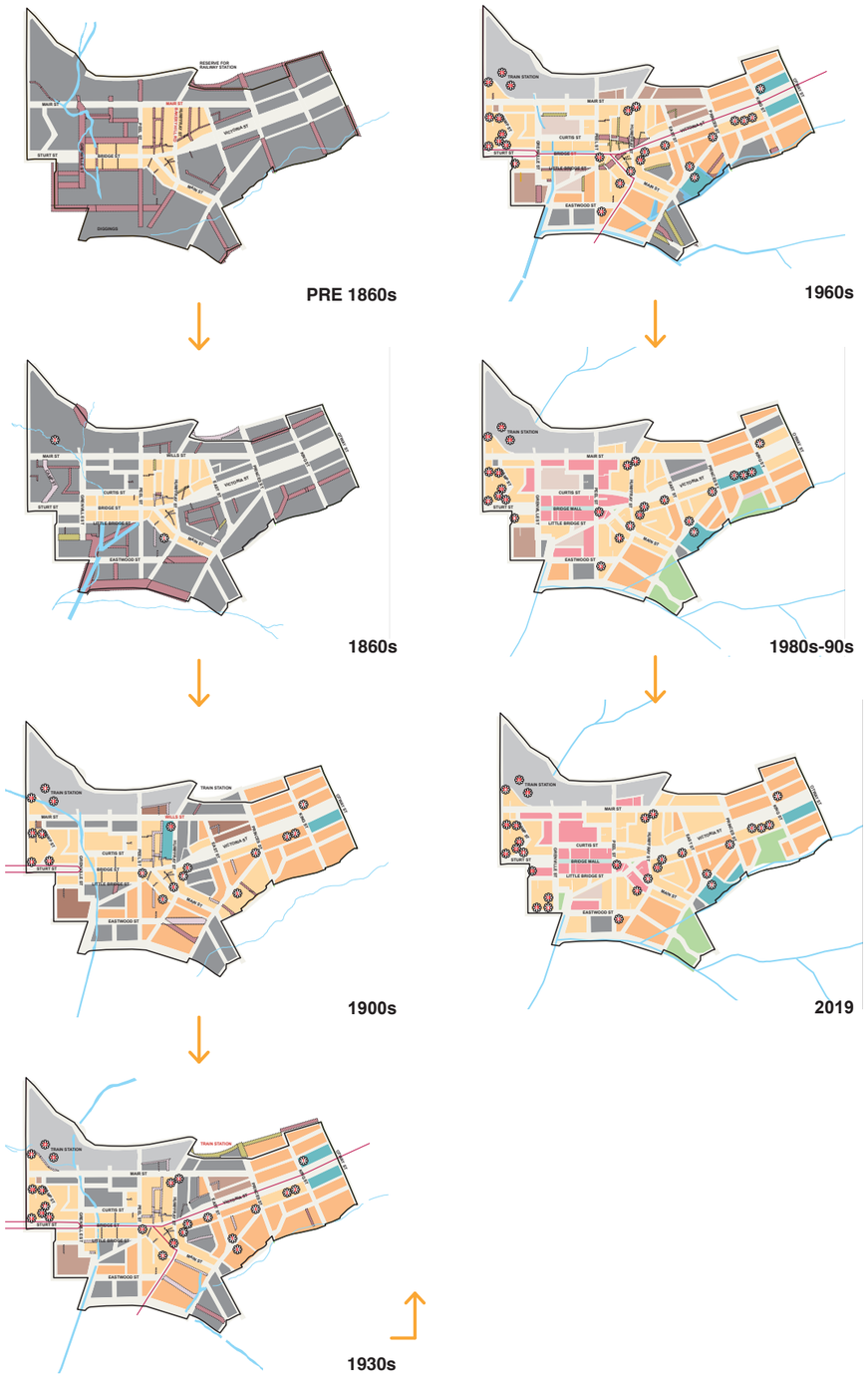
The tram network, which functioned as a fixed "anchor" for investment, people and activities for decades, was decommissioned in 1972. It is thought that many locals continued to walk and ride bikes to access their daily needs, as car ownership was beyond typical household budgets. As Bakery Hill developed more district-scaled big box retail, it became more outwardly focused as a district destination to be accessed by car.

↓

By the 1980s, Bridge Mall was closed to traffic and converted to an outdoor shopping centre, applying an urban design model used by other cities to address increasing traffic and competition from suburban shopping centres.

[1] Further research is needed to quantify our preliminary work in order to gain a robust understanding of how Bakery Hill has evolved. Such research will not only helps us to understand how Bakery Hill has developed into its current form, but which changes have had positive or negative impacts in performing as a 10 minute city. In those periods of time where Bakery Hill has thrived, we will seek guidance for urban renewal.

5. BAKERY HILL'S EVOLUTION AS A LOCAL NEIGHBOURHOOD (1850'S - 2019)



6. PRE-CONTACT BAKERY HILL (FROM 45,000 BP)

PRE CONTACT BAKERY HILL C40,000BP - 1830'S

'The land on which Ballarat East stands is the land that for thousands of years sustained Wadawurrung people. It provided them with water, food and medicine, shelter. It harboured the animals and the birds during winter. It was a place where the surrounding hills protected the environment and all the creatures that lived there.'
(Uncle Bryon Powell, Wadawurrung Elder)

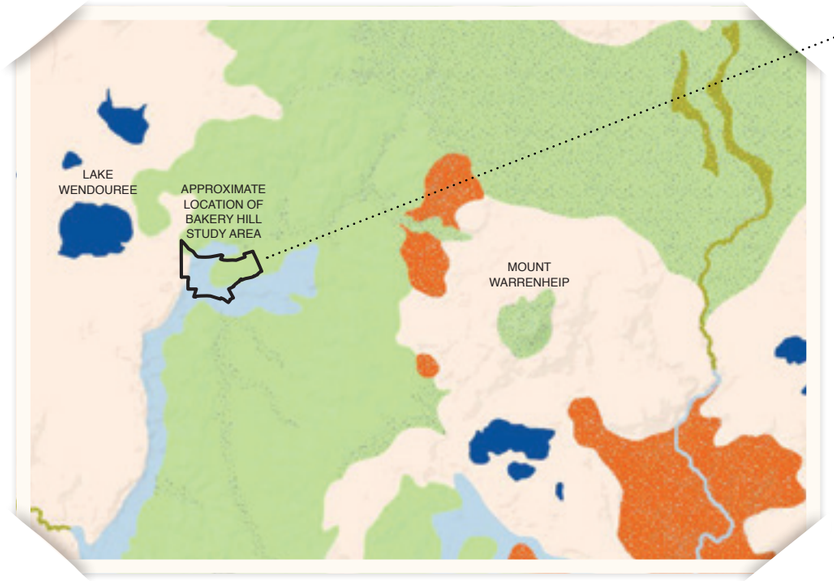
This section forms a "placeholder" to highlight the further work that is required to learn about the ancient cultural landscape of the Wadawurrung people. Further research should draw from a range of sources to understand the ways in which Wadawurrung people interacted with their landscape both spiritually and in daily life. In particular, investigating how Aboriginal people may have managed their landscape, and the ecosystems that resulted.

Starting by investigating pre contact topography and geomorphology that formed the drainage catchment - water is the most essential resource to people, and rivers and their tributaries may have formed seasonal transport routes through country. This spatial information will allow us to estimate the likely travel routes that existed, and the plant species and fauna that may have existed as resources for food, medicine, clothes, tools, baskets, etc.

This work will help generate a valuable information resource that can be shared with local communities and the general public.[1] Applying the research to identifying ways of reconnecting with the landscape for more inclusive and deeper cultural expression, social connections, and improved environmental functions. For example, this will help us in:

- Planning open space and ecological networks that are closer to their naturally evolved functions, which were shaped by Aboriginal management practices.
- Planning stormwater absorption in line with the natural topography.
- Design and management of open space and ecological corridors that function as habitat, "sponges" for stormwater absorption, and with greater resilience to high temperature summer fires. Leisure and recreation functions can still exist, but environmental performance will become a primary prerequisite to creating and curating locally authentic places.

[1] For those aspects of culture that are appropriate to know and share publicly.

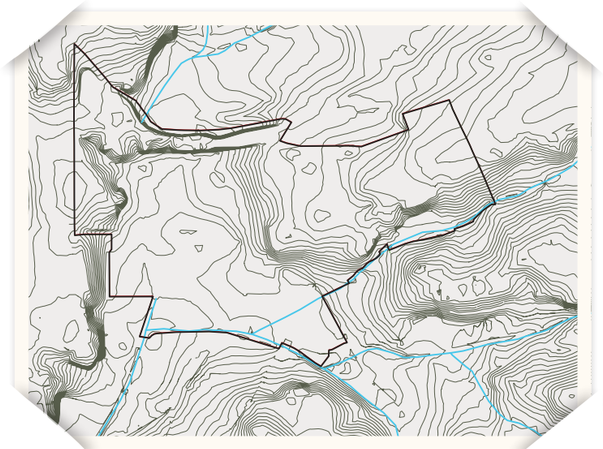


This map derived from Victoria's NatureKit, shows critical spatial information including the Ecological Vegetation Classes (EVCs) and waterways of pre-1750s, as determined through expert interpretation of the landscape prior to European impact. (SOURCE: NatureKit Victoria, 02/07/2019)

6. PRE-CONTACT BAKERY HILL (FROM 45,000 BP)

PRE CONTACT BAKERY HILL C40,000BP - 1830'S

In order to develop a hypothetical picture of the pre contact landscape, EVC maps in NatureKit (preceding page) can be applied alongside other spatial information such as topography and waterways. In some cases pre contact features such as topography will have dramatically changed, particularly in areas of mining.



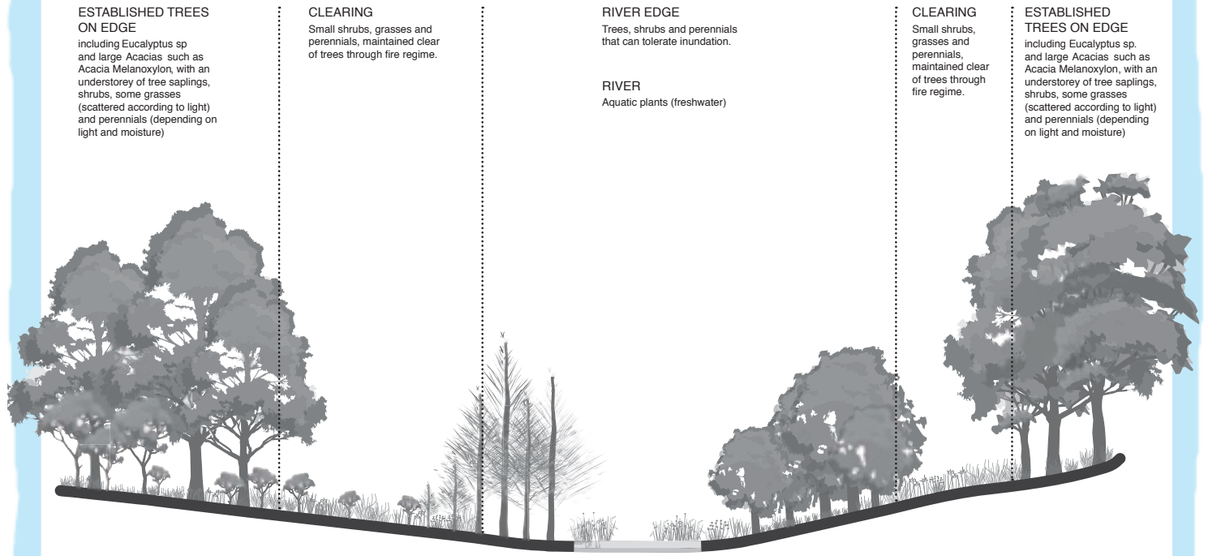
(SOURCE: GIS, CoB)

Aborigines Using Fire To Hunt Kangaroos, Joseph Lycett, c1820. This painting shows clearings in the landscape created through a fire management regime. Such clearings were found throughout Australia, including Victoria (SOURCE: Call No. PIC MSR 12/1/4 #R5689, National Library of Australia)

PRE CONTACT BAKERY HILL C40,000BP - 1830'S

Constructing sections assist illustrate the hypothetical structure and form of plant communities in relation to topography and waterways, and to show the effects of traditional landscape management practices such as fire regime.

This example was drafted for the Yarra (CoM, 2018).



(SOURCE: CoM, 2018:3)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

Project background

The research undertaken to date has determined the principal issues for Bakery Hill (Figure 1), and started to document existing conditions through applying urban components that are critical to both HUL and for shaping local access. The following pages present early analysis of Bakery Hill's current performance, and possible ways in which to improve it through the urban renewal programme.

The 10 minute city

The 10 minute city is a concept mandated by City of Ballarat's (CoB's) Plan for 2017-2030, and:

"reflects the Ballarat community's aspirations to maintain existing or improved levels of local access to destinations and services as the city grows over time" (CoB, 2017:4).

The guiding principle is one of **local access**. International best practice and Victorian research identifies local access as walkability, and that a 10 minute walking catchment of around 800m radius is the limit that most people are willing or able to walk in order to access their daily needs such as schools, shops, doctors, public transport, etc. Walkable, mixed use neighbourhoods are the foundation of sustainable cities, as both an organising principle and as a way of life (CoM, 2014).

Planning for local proximity is not only needed for sustainable and resilient urban growth in Ballarat, but should be relatively straight forward to accomplish in most historic areas. In Bakery Hill there are two logical 'as-the-crow-flies' 10 minute walking catchments (as opposed to true walking catchments) - one incorporating the former East Ballarat train station and cluster of churches and schools to its south, and another around the Bridge Street local shopping strip, tram line and Ballarat Train Station (Figures 2 and 3). The point of looking back to Ballarat's historic city is to demonstrate that the organising elements of its early neighbourhoods were established according to local access to land uses (e.g. schools, churches and shops) and public transport. The intensity and mix of land uses were driven by demand (population catchments and population growth) and spatially anchored along fixed rail public transport, as occurred for many Victorian era cities in Australia and North America.

Even though we are now in the 21st century with access to automobiles, not everyone has a car, and the benefits of walking or using other local transport modes such as cycling are proven to boost mental and physical well being, reduce air pollution, and limit our carbon footprint. Walking and cycling helps us connect to local places and people, enabling chance encounters with our neighbours and friends.

The 10 minute city: urban components

The urban components and their indicators that have been selected are shown in the diagram opposite as urban structure. built form, local movement and open space, which shape each other and together influence the types, diversity and numbers of land uses that exist. These urban components and their indicators are a slight variation to those developed and applied to investigating City of Melbourne's (CoM's) neighbourhoods in 2013-2015[1]. CoM's urban components and their indicators were identified through a comprehensive literature review of international best practice, and applied to Melbourne's CBD, Docklands and Southbank. Admittedly, these places are very different to Ballarat in their urban intensity and pressure for growth, but what is applicable to Ballarat, and indeed to any city, town and village around the world, is the fact that:

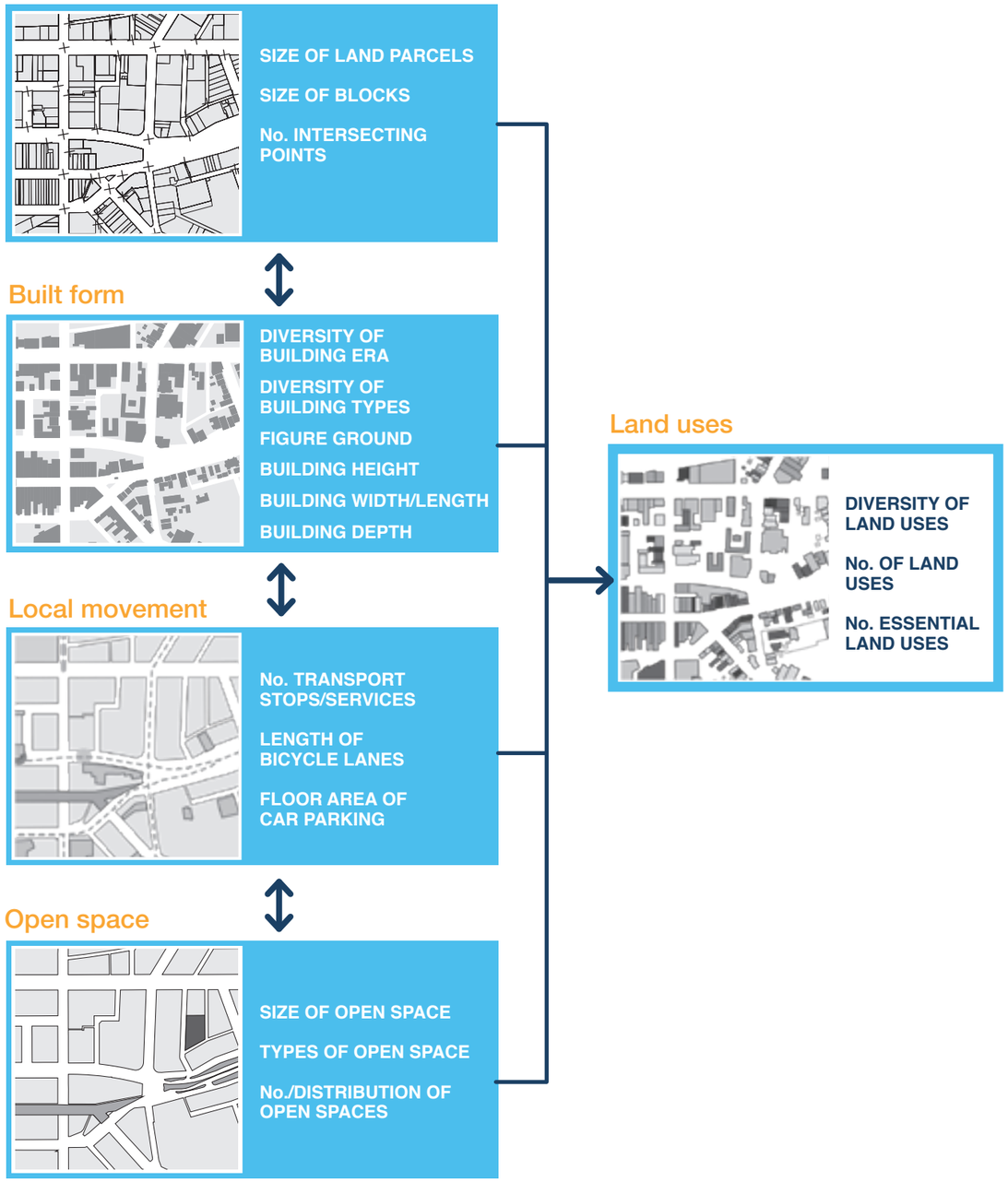
- People walk on average 5km/h.
- People need many of the same types of land uses and services on a daily basis - food, medical care, and education.
- Not all people have access to a car.
- People need social contact for their mental well being.
- People need time outdoors and physical exercise for their mental and physical wellbeing.

Indicators for the urban components have been adapted to CoB in accordance with data availability, primary issues of urban change, and the imperatives of UNESCO's HUL programme. It is hoped that the preliminary work will help to introduce the concept of a 10 minute city, demonstrate the value of rigorous research for informing evidence-based urban renewal.

As an historic part of the city within close proximity to the train station, CBD and Federation University Australia, Bakery Hill is a particularly apt case-study for demonstrating how Ballarat can initiate urban renewal according to the community's desire for 10 minute local access, and how through connecting a series of 10 minute neighbourhoods together via public transport and bicycle lanes (Figure 4), Ballarat can evolve sustainability as a 'city in the landscape' (CoB, 2017:4).

[1]The author was the lead researcher for Places for People 2005 and 2015, and a member of the research team for the Local Liveability 2015 Study, both by City of Melbourne (CoM). Mapping Ballarat project has been commissioned based on these two projects and the author's research and methodology development for the Hoddle Grid Heritage Review, CoM.

THE 10 MINUTE CITY: URBAN COMPONENTS



7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

FIGURE 3. Trams, pedestrians and cyclists in former Bridge Street (Bridge Mall) (SOURCES: BRIDGE STREET, BALLARAT, VIC. Rose Stereograph Co c1920-1954. Accession no: H32492/6629. State Library of Victoria)

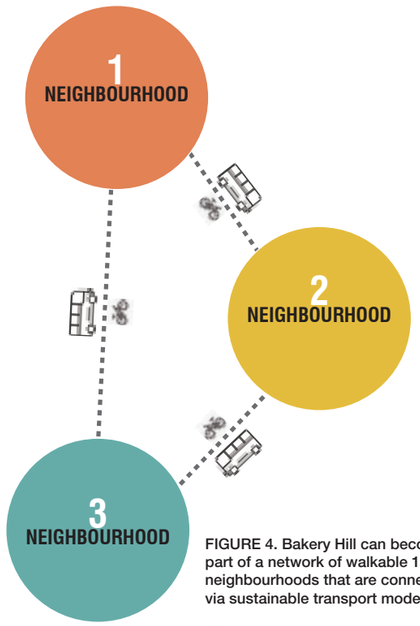
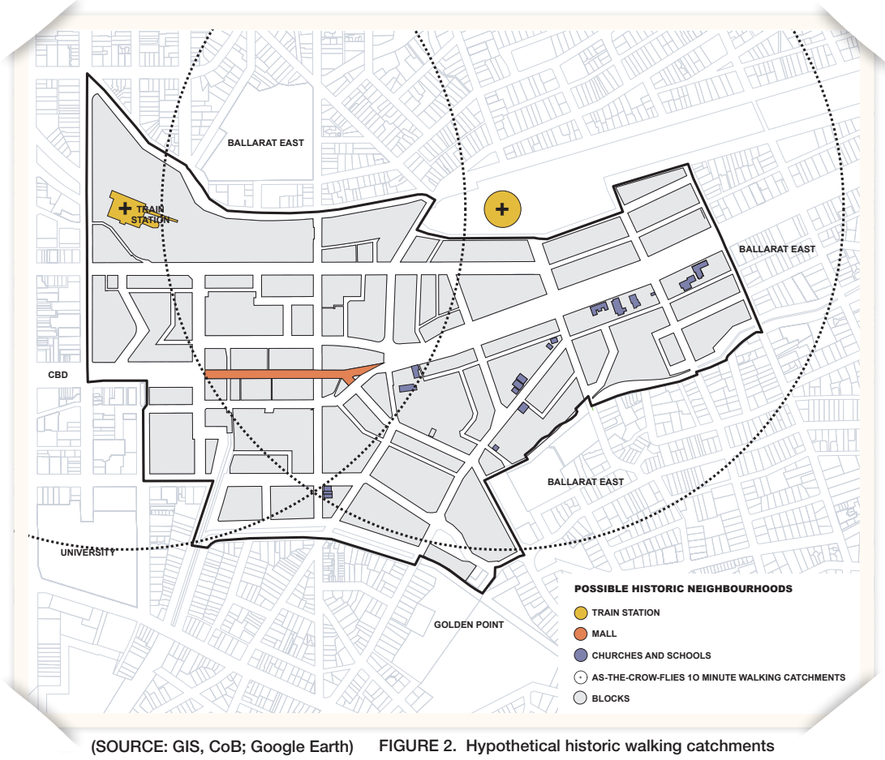


FIGURE 4. Bakery Hill can become part of a network of walkable 10 minute neighbourhoods that are connected via sustainable transport modes.



(SOURCE: GIS, CoB; Google Earth) FIGURE 2. Hypothetical historic walking catchments

URBAN STRUCTURE

What is it?

Urban structure is the spatial arrangement of a town's primary organising components: the street blocks, street network, land parcels, and natural physical features such as rivers, floodplains and topography. Other aspects of the city, including the built form and land uses, contribute to and influence urban structure (CoM, 2014).

Importance

An investigation of urban structure is critical to understanding a town spatially. The scale and arrangement of its urban structure will fundamentally influence the scale and arrangement of buildings, land uses and public space, and so ultimately, determine how walkable local areas are (CoM, 2014).

Victorian trends and impacts

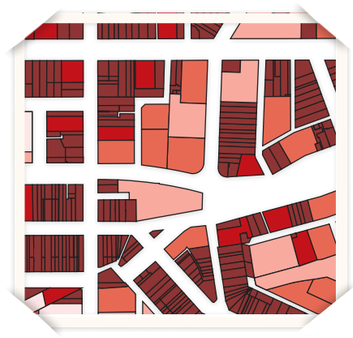
Since Post WWII, there has been a trend towards a loss of human scale in urban structure. The scale of development has typically prioritised the spatial requirements of cars and car parking, and is more conducive to the speed of the car (60-110km/h) rather than movement at a human pace (5km/h). This has occurred in established urban areas through wholesale redevelopment on large, consolidated sites. In new areas of growth, greater mobility offered by the automobile has allowed for dispersed development without walkable connections. Many towns and suburbs have become composed of a series of segregated, homogeneous land use precincts (e.g. residential, shopping precincts and business parks). Lacking in spatial proximity and connectivity, car dependence has become a necessity. The scale of urban structure has become uncongenial to people (CoM, 2014). This is in stark contrast to Australia's historic cities that were rich with complexity and so highly walkable.

How it is being investigated

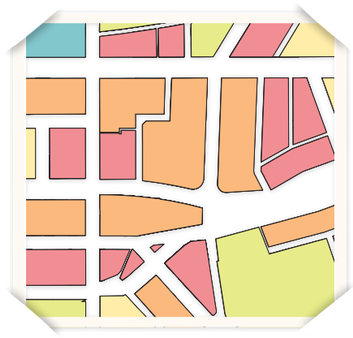
In order to understand urban structure, we are mapping:

- Size and number of land parcels.
- Size and number of blocks.
- Number of intersecting points.

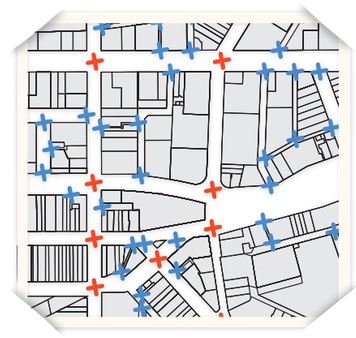
These conditions are proven indicators of the performance of urban structure (CoM (2015a and 2015b).



SIZE OF LAND PARCELS



SIZE OF BLOCKS



No. INTERSECTING POINTS

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

URBAN STRUCTURE: LAND PARCELS

Preliminary findings:

The parcel sizes in Bakery Hill are, from the perspective of walkability, excellent. The smallest parcels, the most conducive to creating small blocks, are also the predominant - composing 86.4% of all parcels. The largest parcels only compose 0.4% of all properties, and they are primarily associated with the train station or schools where greater expanses of space are needed. Only two large parcels seem to have been constructed with big box retail, and these date to the 21st century. Arguably, the Coles site that is situated south of the Mall should also count as a super sized parcel because some of its lots are currently not apparent through functioning as open air car park. This site was first developed in the c.1960s according to the postwar model of car-based retail, replacing what used to be a fine grained block of small scaled parcels.

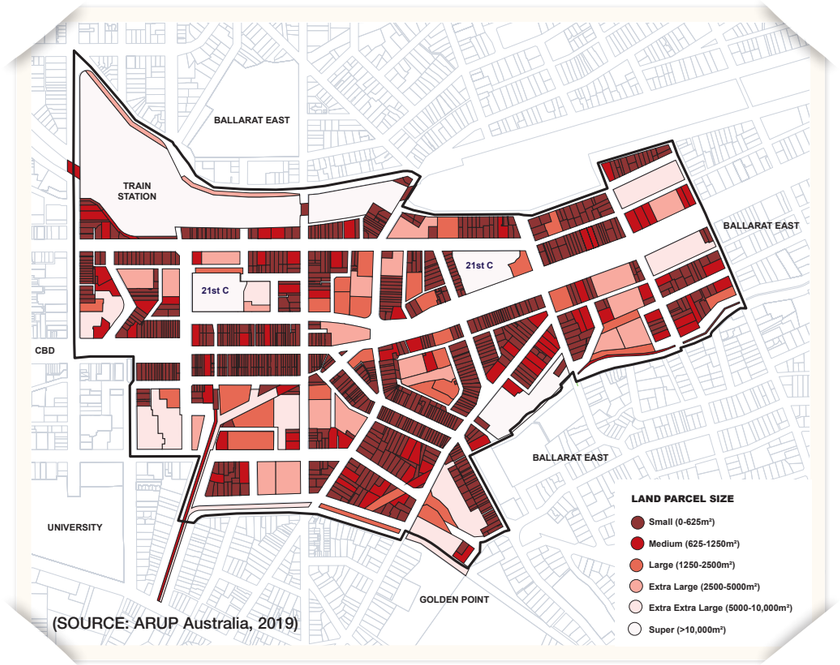
While smaller land parcels are particularly good in generating a walkable urban structure, a range of land parcel sizes is required to support different types of land uses. The range in Bakery Hill reveals a place that has developed over time according to a mix of land uses - the smallest parcels seem to be associated with shops and houses, the medium to larger sites with industry and schools. This range and its distribution distinguishes Bakery Hill as a particularly interesting place and one that has the foundations to again thrive with walkable, mixed use neighbourhoods.

The preliminary data:

Small (0-625^2)	**86.4%**
Medium (625-1250^2)	**7.5%**
Large (1250-2500^2)	**2.8%**
Extra Large (2500-5000^2)	**1.9%**
Extra Extra Large (5000-10,000^2)	**1%**
Super (>10,000^2)	**0.4%**

Preliminary recommendations:

The aim of urban renewal should be to encourage the retention of Bakery Hill's range of parcels sizes, with emphasis on keeping small to medium sized parcels. While the size of land parcels cannot be generally controlled (except through some planning scheme zones), it is recommended that CoB develop design policy for guiding subdivision, and for the design of extra extra large to super sized lots to ensure their development can contribute more as a block or "piece of city" rather than as a single, discrete building. Policy and guidelines should be for site layout, diversity of building typologies and design, maximum building depths and widths, interface with the public environment, and public 24/7 through-block pedestrian connections.



(SOURCE: ARUP Australia, 2019)

URBAN STRUCTURE: BLOCKS

Preliminary findings:

The blocks in Bakery Hill are determined by the size of land parcels (p.6), location of intersecting points (p.8), and associated through-routes (streets and lanes). The bigger blocks have larger land parcels, fewer through-routes and so fewer intersecting points.

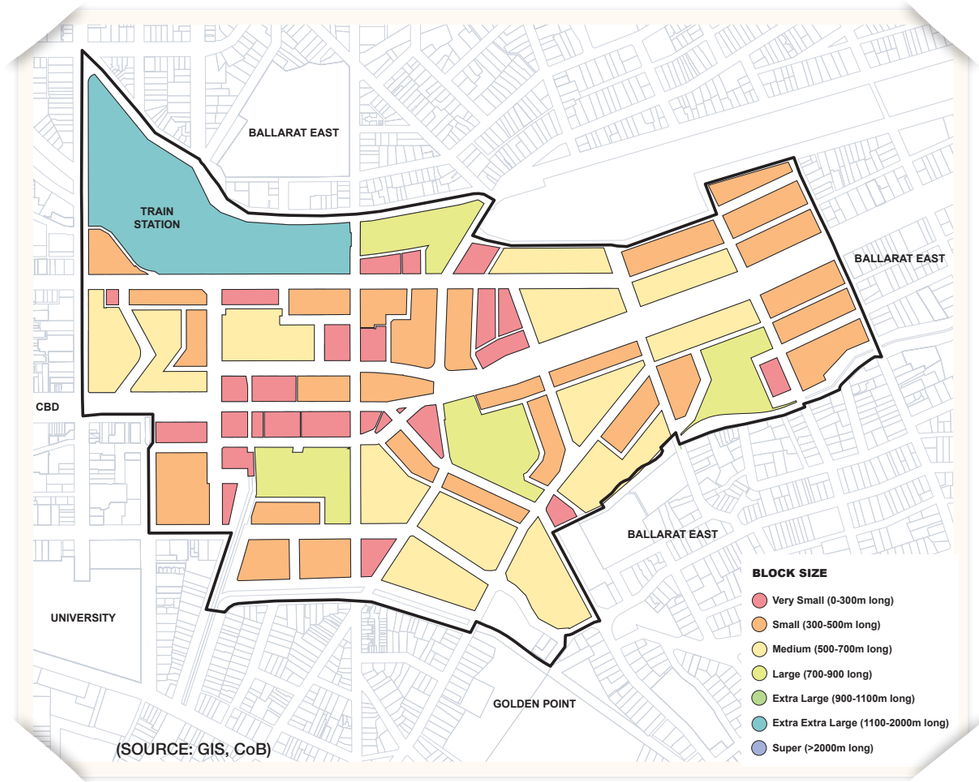
The scale of block sizes is very good. The majority of blocks fall into the smallest sizes. The largest block is situated at the train station, and there are large blocks associated with modern redevelopment, which are symptomatic of a trend towards land consolidation for single large scale developments. Our early research shows evidence of streets and laneways that have been decommissioned and absorbed into such large scape redevelopment, which has enlarged block sizes and created a coarser urban structure.

The preliminary data:

Very Small (0-300m long perimeter)	**36.6%**
Small (300-500m long perimeter)	**38.0%**
Medium (500-700m long perimeter)	**18.3%**
Large (700-900m long perimeter)	**5.6%**
Extra Large (900-1100m long perimeter)	**0%**
Extra Extra Large (1100-2000m long perimeter)	**1.4%**
Super (>2000m long perimeter)	**0%**

Preliminary recommendations:

Please refer to the proceeding page regarding intersecting points.



(SOURCE: GIS, CoB)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

URBAN STRUCTURE: INTERSECTING POINTS

Preliminary findings:

The preliminary findings show an interrelationship between all three urban structure indicators: parcel size shapes block size; parcel size and block size, together with surrounding road reserve, determine the number, type and distribution of intersecting points; and where blocks are large due to the size of internal land parcels and a lack of streets, there are fewer intersecting points (e.g. east and south east of the study area). Where parcels are small and there are many streets and lanes, the number of intersecting points is greater (e.g. around the Mall). Street width is also affecting the number of intersecting points that occur - the wider the street, the fewer the points. This aligns with findings for Melbourne's boulevards (e.g. St Kilda Road), whose 60m width has been consistently found in site analysis and community surveys to create real and perceived barriers to walkability. Victoria Street in Ballarat East is also 60m wide, which like Melbourne's Victorian era boulevards, creates a grand, formal entrance into town, but presents a challenge to connectivity and convenience of the pedestrian network. Street width may be added as an indicator to understand Ballarat's urban structure.

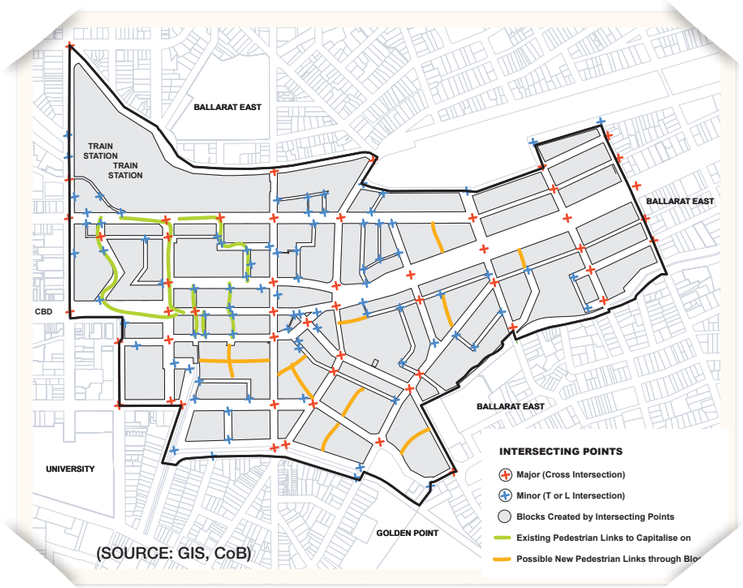
Our mapping distinguishes between cross intersections that offer a four-way choice in direction, 'T' intersections that offer three and 'L' intersections that provide two. In Bakery Hill there are more two to three way intersections. Traditional urban design practice would regard this negatively and encourage links that provide more movement choice, but this thinking has been challenged in recent surveys of central Melbourne's laneways where dead end lanes with solar access and close to the action (activities and people) are used as outdoor spaces away from the bustle of through routes. This finding serves as a timely reminder that where there are many types of locals (residents, workers and students), and growing density, it is important to offer a diversity of choice: busy, bustling places to socialise, and nearby quiet places to rest. The urban structure of Bakery Hill presents an opportunity to retain and nurture existing dead end lanes for their potential as small open spaces.

The preliminary data:

Cross Intersections 38.2% 'L' and 'T' Intersections 61.8%

Preliminary recommendations:

The mapping starts to reveal where there could be additional pedestrian connections to and from the train station using existing streets (green lines) and opportunities for improving connections through blocks (yellow lines), which have not yet been interrogated in the field and with land owners. In addition to identifying new pedestrian connections, the urban renewal programme for Bakery Hill should develop policy and guidelines to protect all existing publicly owned streets and lanes from being decommissioned and absorbed into private redevelopment. For redevelopment on large land parcels, there should be policy to establish new public 24/7 pedestrian connections that contribute to the pedestrian network. These links should make the most of existing surrounding streets and lanes to knit with and so extend network that already exists.



(SOURCE: GIS, CoB)

BUILT FORM

What is it?

In this study built form encompasses the size, physical shape, age, and architectural detail for individual buildings and buildings as an ensemble in defining streets. The "skyline" created by a group of buildings is also considered built form. Critically, building performance is focusing on the adaptability of the current stock to accommodate a diverse and changing range of land uses and occupants over time.

Importance

Both the form and performance of buildings have a significant influence on people's everyday experiences and overall quality of life in public space and within the building itself. The types of buildings that exist will shape the diversity of occupants and land uses that exist in a neighbourhood.

The adaptability of buildings is critical to ensuring the long life of buildings and retaining established, valued urban character. The ability for such buildings to incorporate infill growth allows the layers of urban time to continue to evolve - retaining urban history will enrich their complexity with renewed functions as part of a living city.

Victorian trends and impacts

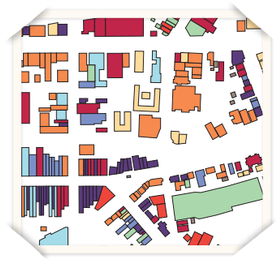
A Victorian-wide trend relevant to Ballarat in managing its urban change is the growth in inflexible ("brittle"), homogenous building types, particularly characterised by deep floor plates and onsite car parking with short floor to ceiling heights. These buildings reduce choice in tenancy types and so restrict diversity of occupants and land uses. They also have limited to no ability for adaption to changing occupant needs and land uses over time, and so have inherent obsolescence. Such buildings are sometimes constructed to incorporate small portions of historic buildings in such a way that the historic fabric can no longer be read as a volume. This type of development not only reduces the integrity of historic fabric, but removes the attributes of the old fabric that would have facilitated flexibility over time.

How it is being investigated

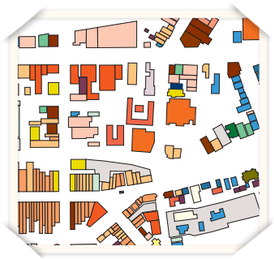
In order to understand the scale of built form and its performance to adaption, we are mapping:

- Building heights.
- Building widths (fronts and backs), lengths (sides) and depths.
- Building age.
- Building typology.
- Relationship of the built form to outdoor space.

While most of these built form parameters have been mapped and tested in previous research, they will for the first time be applied to understanding the degree of flexibility in the building stock to adapt over time.



DIVERSITY OF BUILDING ERA



DIVERSITY OF BUILDING TYPOLOGIES

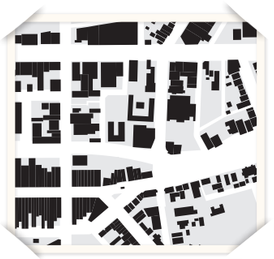
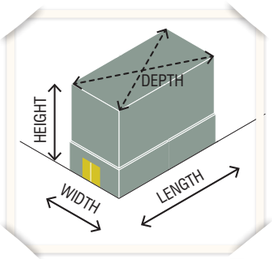


FIGURE GROUND



BUILDING HEIGHT, WIDTH, LENGTH, AND DEPTH

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

BUILT FORM: BUILDING ERA

Preliminary findings:

There is a good range of building eras in Bakery Hill, which are finely distributed so that no one construction period dominates a street or block. The highest proportions represented are Late 20th Century (16.2%), Victorian (15.0%) and Federation (13.4%). The lowest is Post War at 4.7%.

These preliminary findings[1] are meaningful for showing Bakery Hill has developed in urban time as a living urban environment, accruing layers of complexity that come with different architectural periods. The sites in light blue show a particular degree of fine layering with a mixed range of dates apparent on one site, such as shops in Bridge Mall and Sturt Street north, but also (and surprisingly) Coles where development has been inserted at different time periods that add a degree of texture.

The range of building eras is an asset to Bakery Hill, not only distinguishing its neighbourhoods with a rich and layered urban character. The mix of places help people tell time in place, and likely many of these places are the source of shared and personal memories, stories and attachments.

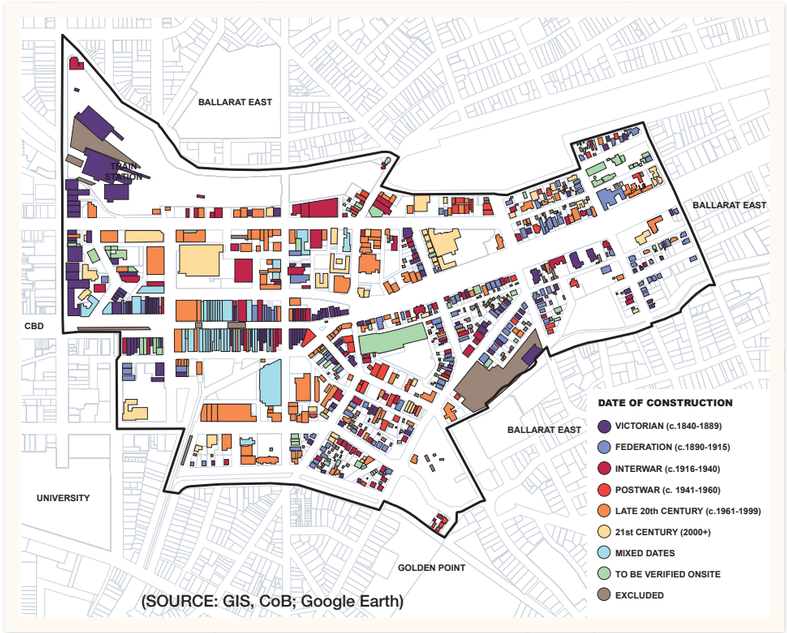
The preliminary data:

Victorian (c.1840-1889)	15.0%
Federation (c.1890-1915)	13.4%
Inter war (c.1916-1940)	11.0%
Post War (c.1941-1960)	4.7%
Late 20th Century (c.1961-1999)	16.2%
21st Century (c. 2000 onwards)	6.1%
Mixed Dates	4.8%
To be Verified Onsite	8.4%
Excluded (as unbuilt or demolished)	20.3%

Preliminary recommendations:

It is difficult to know which mechanisms to consider in protecting Bakery Hill's variegation in building eras. Heritage Overlays require thresholds of cultural significance, and it is the fine mix of building ages that are so valuable here. CoB may need to work with its communities to promote and guide adaptive re use of these buildings, allowing for an appropriate scale of extension and offer incentives and technical advice to property owners to aid adaptation. The Postcode 3000 Programme in Melbourne (c.1992-2002) is a useful model to look to for guiding the market towards adapting under occupied or vacant historic buildings to mixed use places with shops and offices at street level and lower storeys, and residential tenancies above.

[1] To be confirmed through fieldwork.



(SOURCE: GIS, CoB; Google Earth)

BUILT FORM: BUILDING TYPOLOGIES

Preliminary findings:

There is a fairly low mix of building types found in Bakery Hill. The predominant typologies are shops and houses. Of particular concern is that the majority of housing is detached, with very little choice in alternatives such as apartments and studios. This not only restricts the diversity of choice for different households, but means the urban density is very low in the eastern and south eastern parts of the study area where detached low rise housing prevails.

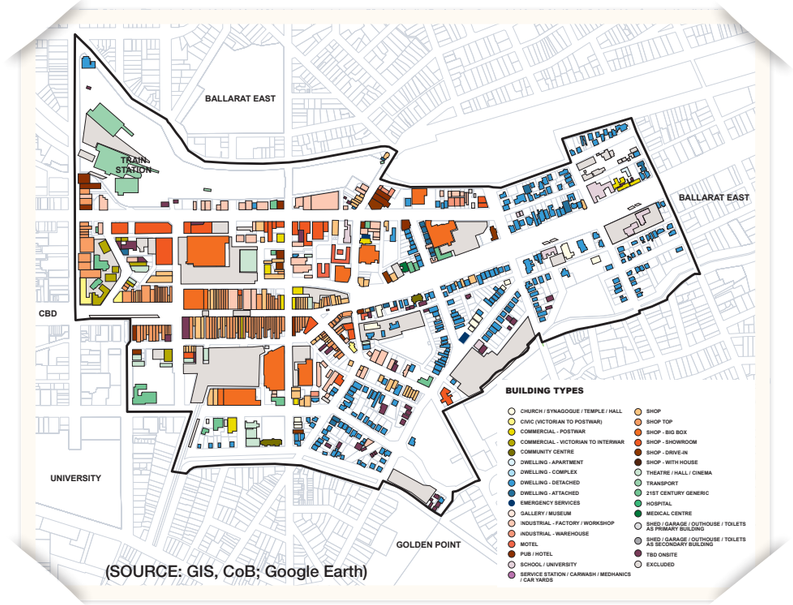
Detached, low rise houses set in gardens, the staple of many Australian suburbs, tend to have low densities of <25 dwellings per hectare (compared with 25-60 dwellings per hectare for medium density, and >60 dwellings per hectare for high density) (Giles-Corti, B; Hooper, P; Foster, S; Koohsari, M; Francis, J, 2014: 9-10). The primary issue with low densities is that they restrict the size of the population catchment, which in turn hampers the viability of other land uses such as shops, medical services, schools, kinders, and public transport (Figure 4).

The preliminary data:

Medical Centre	0.1%
Community Centre	0.2%
Emergency Services (e.g. Fire Station)	0.2%
Civic (e.g. Town Hall)	0.3%
Motel	0.5%
Other	0.6%
Education (e.g. School)	0.8%
Ecclesiastic (e.g. Church or Synagogue)	1.3%
Pub / Hotel	1.4%
21St Century Generic (e.g. Business Park Type)	1.5%
Hall / Cinema / Theatre	1.5%
Commercial	2.1%
Dwelling - Other (e.g. Apartments)	2.3%
Big Box Retail	2.5%
Motor Mechanics / Garage / Service Station	3.4%
To Be Verified	3.8%
Industrial	3.9%
Excluded	6.1%
Outhouse	19.2%
Shop	23.4%
Dwelling - Detached	24.9%

Preliminary recommendations:

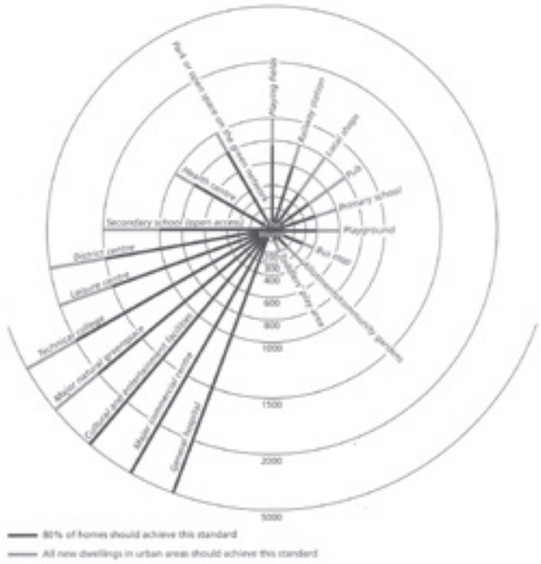
The urban renewal programme should target Bakery Hill's low housing diversity and apparent low densities (for there is inadequate data to quantify them), by investigating possible mechanisms to promote adaptive reuse of under occupied or vacant historic buildings, particularly within a 10 minute walk of the retail centre and train station.



(SOURCE: GIS, CoB; Google Earth)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

BUILT FORM + LAND USES



Source: Barton et al, 1995

Table 6.1 *Possible Local Facility Catchments*

Catchment	Population
Primary school	1:2500–4500
Secondary school	1:7000–15,000
Doctor's surgery	1:2500–3000
Public house	1:5000–7000
Corner shop	1:2000–5000
Local shopping centre	1:5000–10,000
Post office	1:5000–10,000
Health centres (4 doctors)	1:9000–12,000
Library	1:12,000–30,000
Church	1:9000 minimum
Community centre	1:7000–15,000
Youth club	1:7000–11,000
Sports centre	1:25,000–40,000
Superstore/district centre	1:25,000–40,000

Note: Caution – this list is indicative only, and based on city-scale not small towns. Catchments may vary from place to place and over time.
Sources: Coombes, Farthing and Winter (1992–94) Greater London Council (1965) Milton Keynes Development Corporation (1992) *Source:* Barton et al,1995

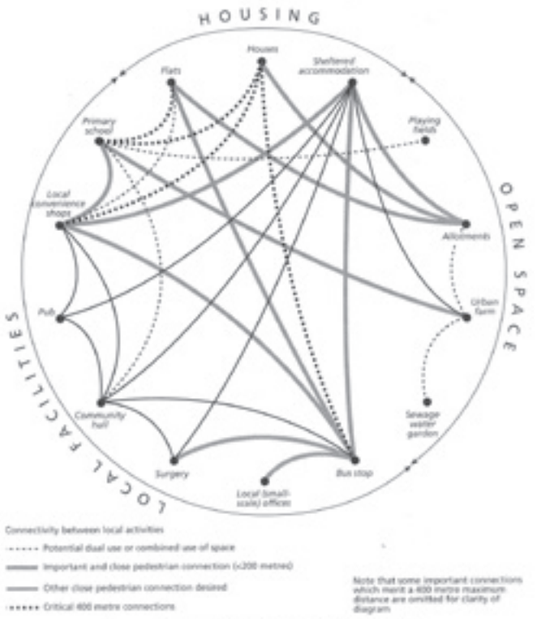


Figure 6.3 *Connectivity Between Local Activities*

Table 7.3 *The ABCD of Facilities Location: Derived from Dutch Practice*

	Category of Business	Accessibility Requirements
A Locations City/Town centre Major secondary centres in conurbations	Major Regional Trip Generators • Large offices/business centres (distinguished by size, no. of employees and no. of visitors) • Specialist/durable goods shopping centre • Major cultural/leisure attractions • Universities • Regional hospitals • Any B location activity	• Within 400-800m of the entrance of a railway station providing fast and regular services • With centrality in relation to good quality urban public transport services, which should be adjacent or close to the station • Easy, safe and convenient movement by foot and bike around the centre and to nearby residential areas
B Locations District centres Centres of small towns	Major Town/District Generators • Small offices, eg up to 500-1000m² • Convenience shopping centres, including superstores and DIY warehouses • Leisure centres • Technical colleges • District hospitals • Intensive manufacturing (with high employee density and frequent visitors)	• Within 400m of an urban public transport hub providing good level of access in most directions • Safe and convenient access for pedestrians and cyclists • Embedded within the built-up area, not on its edge
C Locations	Heavy freight generators • Regional warehouses • Distribution centres • Manufacturing (where employees and visitor density is low)	• Within 2km of direct access on to the national road network (normally motorway or dual carriageway) without passing through residential areas • Direct access on to railways, waterways or coastal shipping – or the potential to achieve direct access in the future
D Locations	Local generators • schools • parks and playgrounds • local shops, post offices • pubs, clubs, community centres • health centres	• clustered in local centres or along high streets at the heart of residential areas • majority of catchment population within 400m • close to a good bus service linking to higher tier centres

Source: based on Barton et al, 1995

FIGURE 4. These diagrams and tables show the ideal distances from home to essential land uses, and the population catchments required to make the land uses viable.

Specific conditions conducive to walkable neighbourhoods and adaptive reuse.

BUILT FORM: FIGURE GROUND

Preliminary findings:

The Figure Ground map for Bakery Hill reveals intensity where buildings are attached or close together (e.g. Bridge Mall and Sturt Street), but a great area of voids where buildings are detached (setback from the street and side boundaries), and where there are open air car parks.

Such a dispersal of buildings is generally not conducive to walking as the voids between buildings enlarge the distance needed to travel between each land use. The building dispersion also limits the density of people and so the viability of land uses that depend on particular building catchment sizes (Figure 4).

Preliminary recommendations:

The Figure ground map can be quantified to calculate the ratio of buildings to unbuilt space. Fieldwork will help identify sites where infill development should be encouraged, particularly where car parks are operating on vacant sites.

(SOURCE: GIS, CoB; Google Earth)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

BUILT FORM: BUILDING HEIGHT

Preliminary findings:

The majority (68%) of buildings in Bakery Hill are 1-2 storeys tall (approximately 3.5-7m high). Bridge Mall features mainly two storey buildings that help to define the street as an outdoor room, and improve its potential for occupation to enliven the street with land uses and people. Surrounding streets are mainly a single storey, and there appears to be sites where buildings have been demolished and are now used for open air car parking (4.7%).

The prevailing low rise character affords clear views to the city and surrounding landscape, and allows for solar access into streets and lanes. But these positive aspects come at the cost of a viable population catchment to support essential land uses.

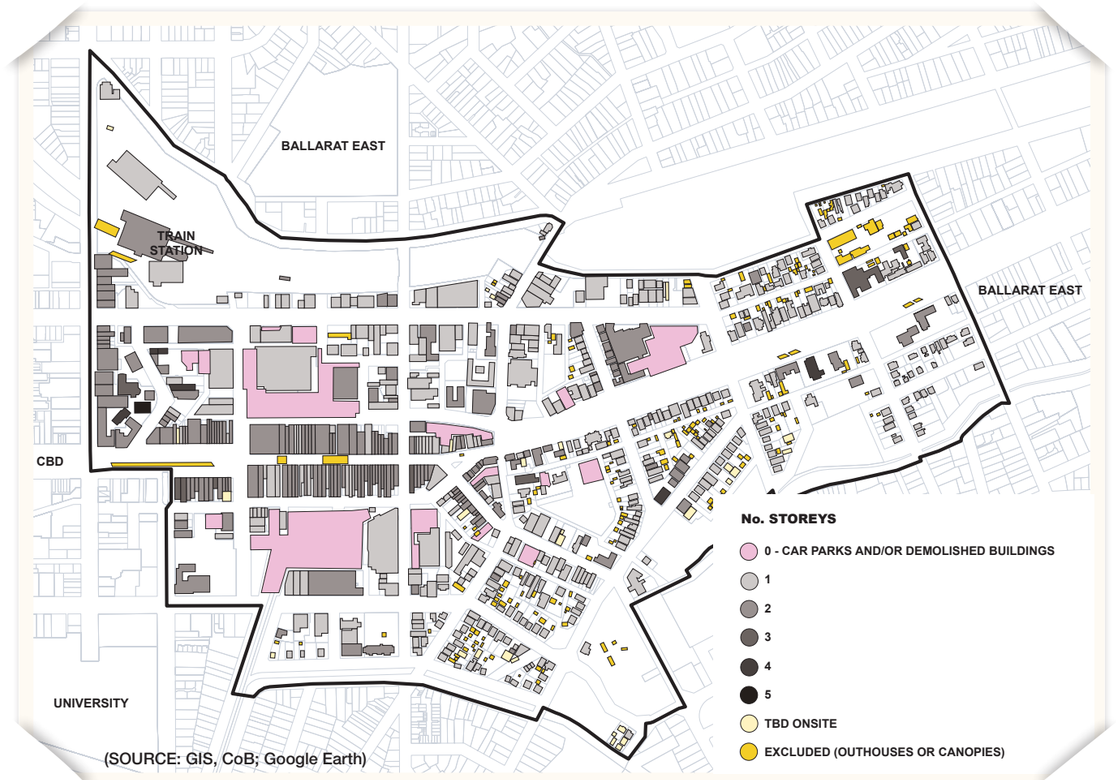
The preliminary data:

0	**4.7%**
1	**47.4%**
2	**21.0%**
3	**0.8%**
4	**0.6%**
5	**0.1%**
To be Verified	**3.1%**
Excluded	**22.4%**

Preliminary recommendations:

Bakery Hill's low rise character may need to be reconsidered to address densities to improve land use viability. Modelling acceptable urban change can inform future planning controls and design guidelines for infill growth.

Those sites currently vacant and operating as formal or informal car parking lots should be targeted for mixed use infill development projects.



(SOURCE: GIS, CoB; Google Earth)

BUILT FORM: BUILDING WIDTHS

Preliminary findings:

The buildings widths in Bakery Hill generally offer an excellent fine degree of grain to the public interface, and there is a range of widths to suit different land uses. The building widths seem to follow the pattern of parcel size seen on p.x - there is roughly a sliding scale with the majority of building widths in the narrowest category, and fewer buildings in the wider categories. The exception to this is the higher proportion of buildings greater than 50m wide. These findings demonstrate the effect of parcel size on built form - the larger the land parcel, the larger the buildings tend to be (with the exception of campus sites composed of multiple buildings, such as a school).

The preliminary findings for frontage width are important for showing how Bakery Hill's built form presents to the public environment, and how it contributes to walkability through the diversity and number of land uses the built form can accommodate. Through researching building frontages since 1993, the author has found that the narrower the frontage:

- The more architectural detail tends to be presented to the street, aggregating in a complex, layered and interesting street wall.
- The more building entrances are present per 100m of street, providing more opportunities for people to come and go between the street and building, and so the greater likelihood of chance encounters for social exchange.
- The more opportunities there are for "eyes on the street" that offer a sense of human connection and safety.
- The more land uses that exist in number and diversity on the street, as tenancies are smaller.

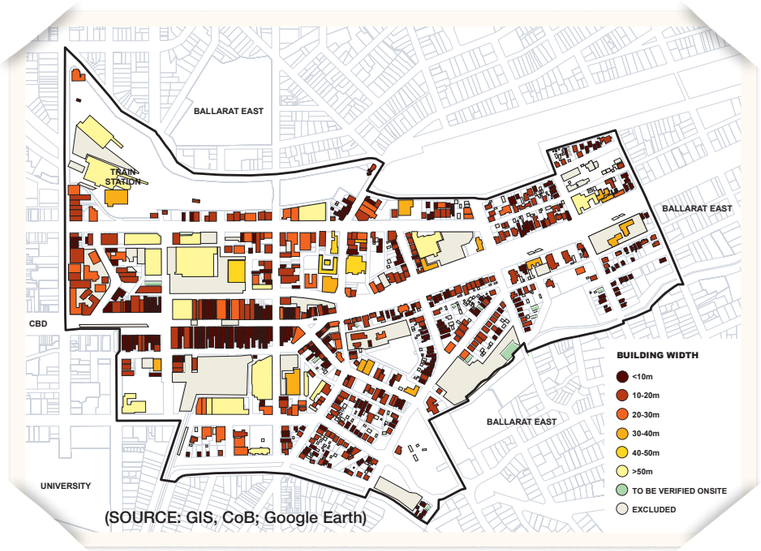
The above conditions hold true for Bakery Hill in everything except land use diversity and numbers. This is probably symptomatic of the low population catchment. In Bridge Mall, the lack of diversity and number of activities may be due to the street being designed and managed as an outdoor shopping centre rather than as a local high street.

The preliminary data:

1-10m Wide	**34.6%**	**10-20m Wide**	**28.5%**
20-30m Wide	**5.5%**	**30-40m Wide**	**1.7%**
40-50m Wide	**0.5%**	**>50m Wide**	**1.9%**
To be Verified	**1.7%**	**Excluded**	**25.6%**

Preliminary recommendations:

The completed research will inform design guidelines for a scale range appropriate to Bakery Hill's prevailing character. Controls for 'Active Frontage' should only be considered for particular parts of Bakery Hill, and these designed to avoid the issues that have occurred elsewhere in Victoria (principally, super human lengths of glazing with no entrances, and interior design that blocks glazing within weeks of building occupation).



(SOURCE: GIS, CoB; Google Earth)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

BUILT FORM: BUILDING LENGTHS

Preliminary findings:

As with building width, Bakery Hill's building lengths offer a strong diversity for supporting different land uses, and are generally shaped by their respective land parcels. Whether they have a positive interface with the public environment depends if the they are attached to neighbouring buildings. For buildings with long sides that are attached, the challenge is always in access to natural daylight through windows, and this has been overcome in some buildings of Bridge Mall through saw tooth rooflines.

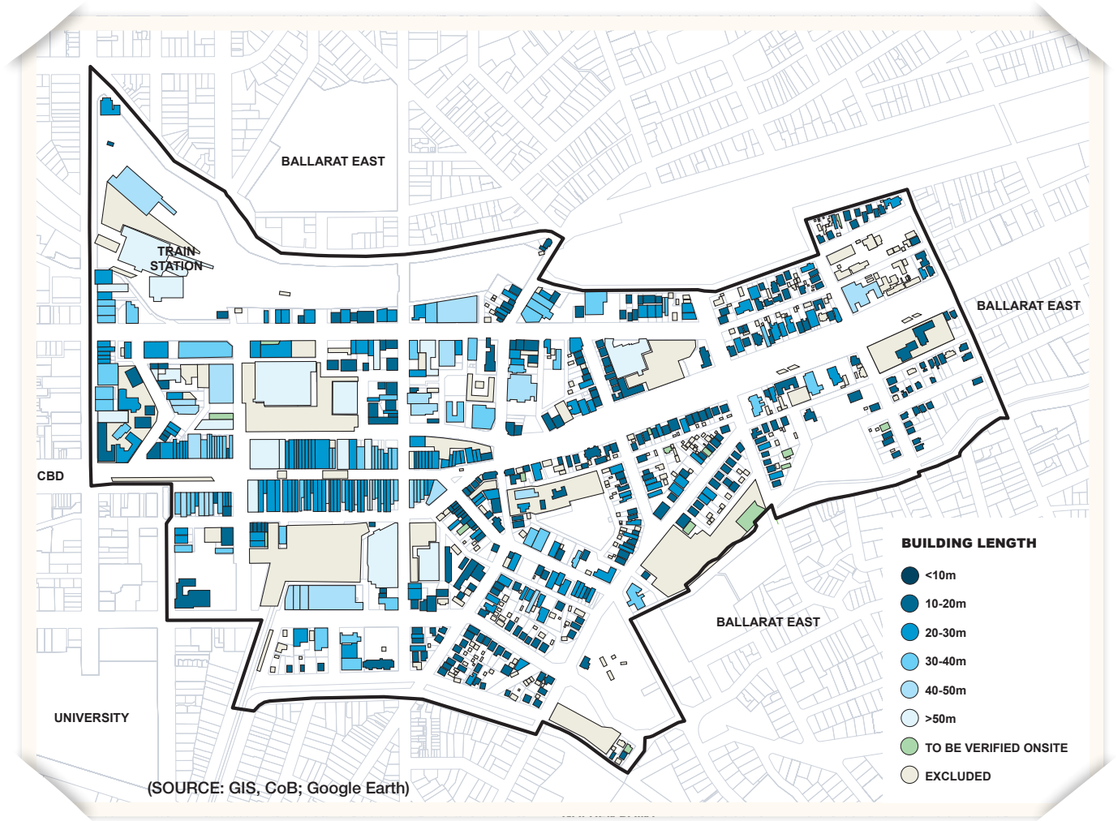
The findings for building sides are not particularly useful when considered in isolation, but have been presented here to show the range in scale that currently exists in Bakery Hill.

The preliminary data:

1-10m Long	7.5%	**10-20m Long**	33.5%
20-30m Long	19.5%	**30-40m Long**	7.0%
40-50m Long	3.0%	**>50m Long**	2.2%
To be Verified	1.7%	**Excluded**	25.5%

Preliminary recommendations:

As for building widths.



(SOURCE: GIS, CoB; Google Earth)

BUILT FORM: BUILDING DEPTHS

Preliminary findings:

This indicator is being developed to inform opportunities for adaptation. The degree of daylight that reaches internal rooms is important for quality of life and for day-to-day functionality as a residence, business or other activity. The amount of daylight that permeates a room will depend on such factors as floor to ceiling heights, the size and placement of windows, the orientation of the window (facing north, south, east or west), the height of the room above street level, and the height and setbacks of neighbouring buildings. For simplicity, a good rule of thumb is 12m as the maximum depth in which natural daylight will reach an interior space - as little daylight reaches beyond 12m deep (Figure 5) (Ibrahim, N and Hayman, S, n.d.:400). In classifying the buildings on the facing map, it has been assumed:

- All buildings that are detached will have windows on at least two sides - this is why a measure of 24m has been chosen - rooms will have an average depth of 12m.
- All buildings that are attached on both sides (e.g. shops in Bridge Mall) do not have skylights that would help compensate for low lighting (at least one building is known to have this feature, but fieldwork is required).

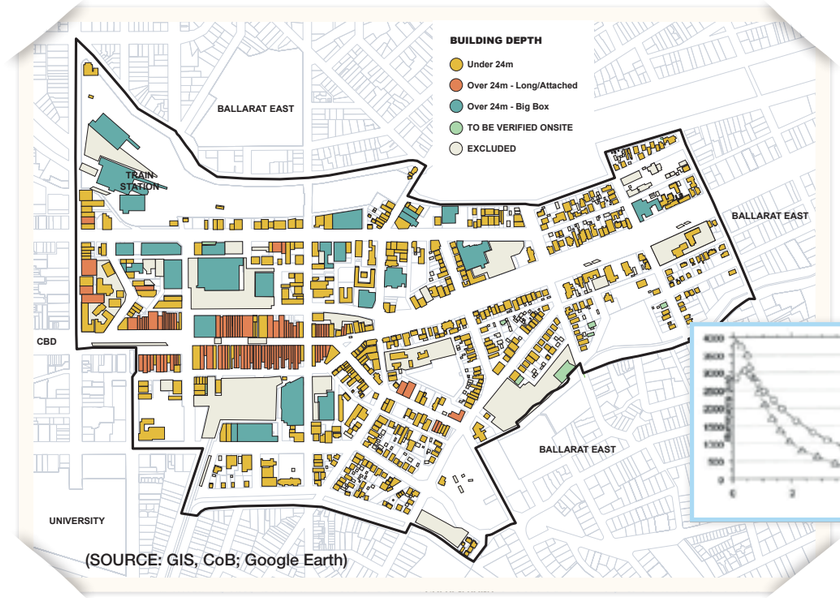
The results show that almost 60% of buildings have a depth below 24m, meaning the majority of buildings probably allow for adequate daylight access to inhabitants. Of those buildings identified as deeper, 11% are historic to modern shops or workshops with a narrow frontage and long sides. Such buildings present a challenge but where design can overcome their long footprints through courtyards, skylights and windows above the roofline of neighbouring buildings. The remainder over 24m are Big Box typologies - composing only 2.7% of the building stock and presenting their own challenges to daylight access that may be overcome with skylights and saw tooth rooflines, for example. The issues in adding skylights to these buildings is, unlike the shop typologies, they are typically made of poorly insulated facade materials, and so adding fenestration will only make these buildings perform even more poorly for inhabitants.

The preliminary data:

Below 24m	59.4%
24m and Over - Long / Attached	11.0%
24m and Over - Big Box	2.7%
To be Verified	1.7%
Excluded	25.1%

Preliminary recommendations:

The preliminary results provide a rough idea of current performance.



(SOURCE: GIS, CoB; Google Earth)

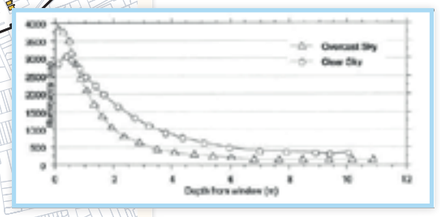


FIGURE 5. Room depth vs centre line illuminance showing that little light reaches from a window to the room beyond 12m (Ibrahim, N and Hayman, S, n.d.:400).

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

BUILT FORM: BUILDING ADAPTATION

Preliminary findings:

Preliminary research has identified at least 72 buildings in the study area that have adapted from their original land use to a different land use. It is expected that more buildings will be found through further fieldwork.

The predominant types of buildings to adapt to another use are detached dwellings (23.6%) and shops (29.2%). The primary land uses to which the buildings have adapted to are retail (9.7%) and office (38.9%). The main construction period of the adapted buildings is late 20th century, but over half of the buildings need to have their architectural era checked onsite, primarily because through adaption, the buildings have lost original features or have had them concealed by signage and new facade details.

The methods so far used for assessing adaptability are preliminary. The indicators for built form on the preceding pages may be synthesised together in the anticipation that the data will reveal which buildings are most able to adapt, and which land uses are flexible to a range of different building types.

A changing city is one of HUL's imperatives: cities are living and so must have the flexibility to continue evolving according to changing economies, needs and population growth. The presence of adaptation may be regarded as an indicator of Bakery Hill's "health" as a neighbourhood with the ability to adapt according to changing economies and needs, but it also may be symptomatic of an over supply of particular building types and / or growth in certain land use activities.

The preliminary data:

BUILDING TYPE ADAPTED TO ANOTHER USE

Warehouse Workshop	**8.3%**
Dwelling	**23.6%**
Shop	**29.2%**
Other	**38.9%**

LAND USE ADAPTED TO

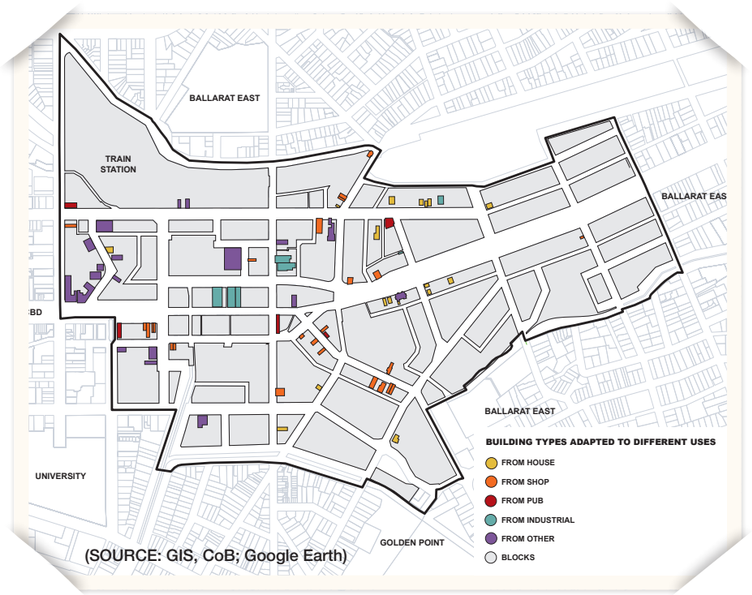
Medical	**6.9%**
Education	**8.3%**
Retail	**9.7%**
Other	**36.1%**
Office	**38.9%**

BUILDING ERA OF ADAPTED

Postwar	**2.8%**
Victorian	**4.2%**
21St C	**8.3%**
Inter war	**9.7%**
Federation	**11.1%**
Late 20Th C	**15.3%**
To Be Verified Onsite	**48.6%**

Preliminary recommendations:

The preliminary results should be refined and then recommendations follow from this work to help guide Bakery Hill's urban renewal through adaptive re use.



(SOURCE: GIS, CoB; Google Earth)

LOCAL MOVEMENT WHAT IS IT?

Local movement is about using active modes of transport including walking, cycling and public transport, to access everyday needs and travelling to neighbouring neighbourhoods.

Importance

Compact, mixed use local areas with highly connected streets support a variety of active transport modes that offer 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 (CoM, 2015b).

The degree of walkability is critical for determining a neighbourhood's ability to attract and support public life in the street, as well as its environmental and economic resilience in facilitating walking rather than imposing car dependency (CoM, 2015a).

Victorian trends and impacts

Arguably, changes in transport technology have been one of the most powerful influencers on Victoria's towns and cities. Prior to car ownership becoming common, urban places had to be connected to public transport to be accessible, and neighbourhoods were small enough, varied enough in their land uses and in connected street networks to be walkable.

Post WWII redevelopment evolved for private mobility, which has helped to develop a good road network, but has been to the cost of local access. The intricate complexities of pre-war towns and cities became reduced to low density mono-functional "precincts" segregated from one another and liberated from fixed rail transport such as trains and trams. Car dependency transitioned from a novel luxury in the 1920s to an imposed necessity by the 1960s.

While there are still fringe estates committed to rolling out cul-de-sacs of disconnected, low density suburbia, population growth in other parts of Victoria is leading to urban repair with more mixed uses, higher densities and connected places. Where population growth remains low, the proximity between everyday activities and essential services leads to:

- The need to travel to multiple destinations at long distances beyond the local area, in order to meet every day needs.
- Dependence on fossil-fuelled travel.
- Associated health, environmental and social costs due to car dependence.

How it is being investigated

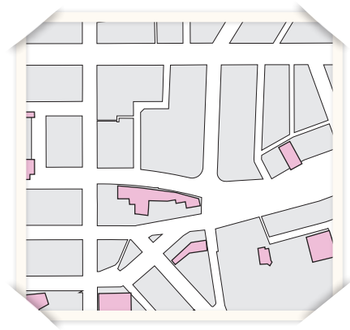
In order to understand Bakery Hill's local movement, we are mapping:

- No. of public transport stops.
- No. and frequency of public transport services.
- Length of existing bicycle lanes.
- Floor area of car parking.

With the exception of floor area of car parking, these conditions are tested indicators for the performance of local transport. Ordinarily, the ratio of car parking to people would be used as an indicator, but there is not enough occupancy data to allow this ratio to be determined for the Ballarat study areas.

No. TRANSPORT STOPS/SERVICES

LENGTH OF BICYCLE LANES



FLOOR AREA OF CAR PARKING

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

LOCAL MOVEMENT: BICYCLE LANES

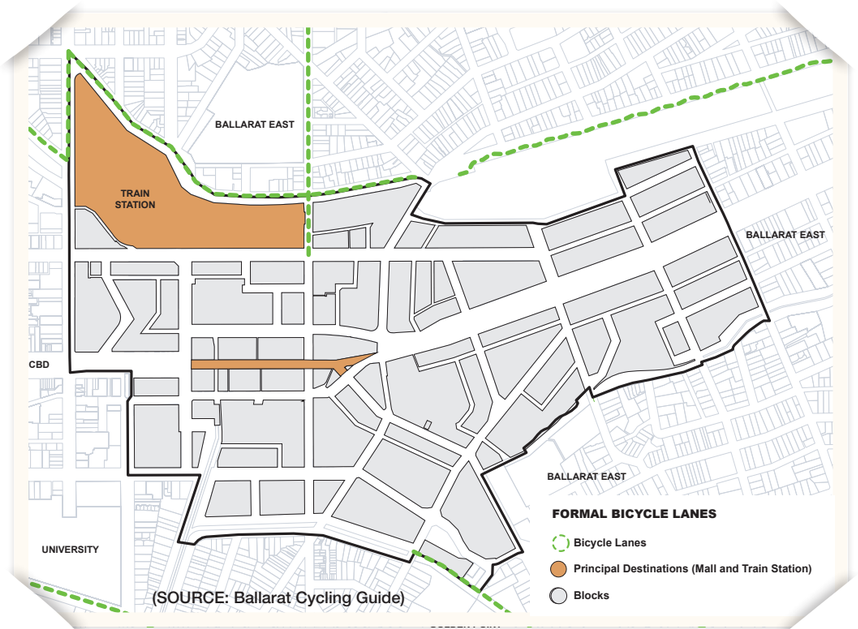
Preliminary findings:

The map opposite shows Bakery Hill's formalised bike lanes, those lanes demarcated for cyclists (e.g. through line marking) and so more likely to be used by a range of cyclists from beginners to experienced. There is just under 4km of formal bicycle lanes surrounding Bakery Hill. The bicycle lanes that exist do provide some choice in travelling north-south or east-west, but only a fraction of the lanes (135m which is less than a minute's walk) exists within the study area.

The existing bicycle lanes present a good foundation from which to start developing a connected network that links primary destinations within the study area, and connects Bakery Hill to surrounding neighbourhoods. Relatively flat topography and low traffic volumes will enable an easy transition from driving to cycling for some people, as long as bicycle lanes are convenient, connected and safe. The question will be whether bicycle lanes should be formalised through line marking, green surfaces or physically segregated (e.g. 'Copenhagen Style' lanes). It may be enough to make Bakery Hill's entire street network cyclist friendly through reducing traffic speeds to below 40km/h to make sharing the road less intimidating for people starting out in cycling.

Preliminary recommendations:

- Identify existing "missing links" in the network that can be quickly connected for immediate improvement.
- Plan a network of lanes that link local and district destinations (e.g. train station, bus interchange, grocery stores), and connect neighbourhoods together (Figure 4).
- Determine whether bicycle lanes should be segregated ('Copenhagen Style') or share the road. Segregated lanes provide a sense of security for riders, but can be expensive to construct and inflexible to growing bicycle traffic. They also create potential conflict points at driveways.
- Determine where traffic speeds should be reduced to 40km/h to lower the speed disparity between cars and bikes.
- Install convenient bicycle parking at primary destinations and at set distances in streets (e.g. one per 100m).
- Work with local communities and bicycle clubs on developing and running events and programmes that promote cycling and teach on-road cycling skills.
- Capitalise on the mountain bike track at Black Hill, the Skate Park in Ballarat East and the trail around Lake Wendouree to promote Ballarat as a ***bicycle city***.



(SOURCE: Ballarat Cycling Guide)

LOCAL MOVEMENT: PUBLIC TRANSPORT

Preliminary findings:

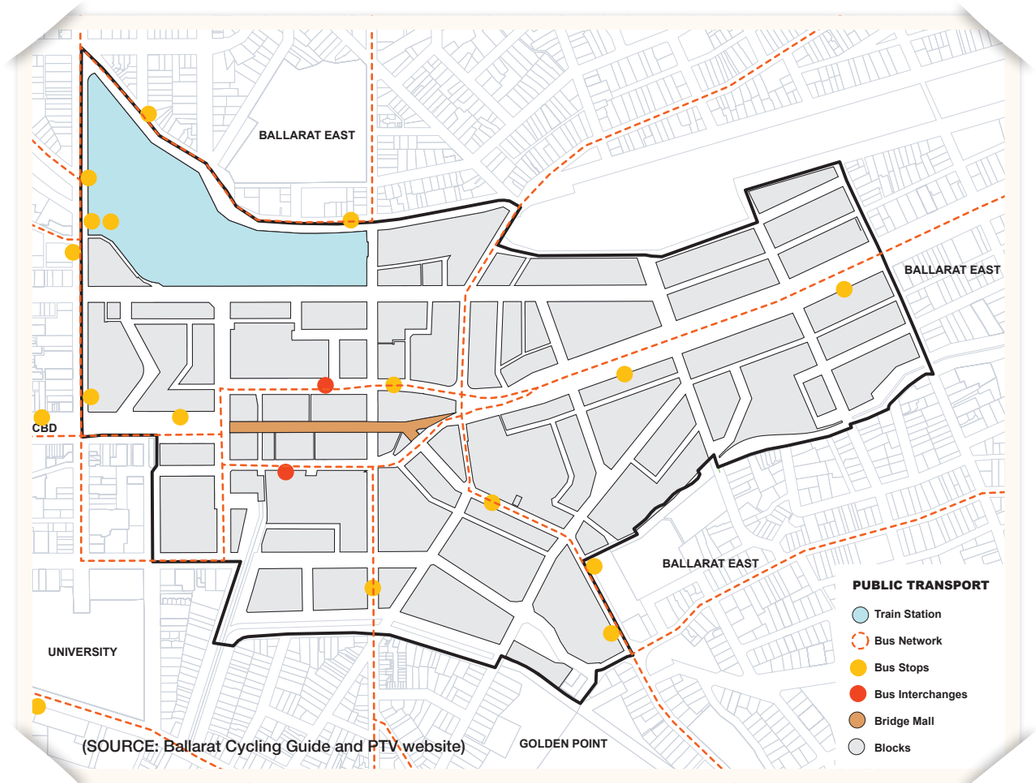
Bakery Hill is located in close proximity to the Ballarat train station, and has two bus interchanges either side of Bridge Mall. As research progresses, Bakery Hill's public transport can be quantified according to true 10 minute walking catchments. In addition to considering the location and number of public transport stops and networks, the frequency and extent of services can be investigated to determine the convenience and functionality of public transport for people.

Preliminary recommendations:

To improve public transport services and patronage, transport planning will need to be closely integrated with land uses and urban densities - the three fundamentally shape one another, and are linked to urban structure, built form and open space. That is:

- Land uses give purpose to people's journeys. Pedestrian surveys in central Melbourne have found that more people are found where there is a diverse range and high number of activities.
- The number of people is also influenced by surrounding urban densities, and the ratio of residents to businesses will influence when people are found in the area.
- The density of land uses and people are shaped by building types, building size, the presence / degree of onsite car parking, open space and urban structure.
- Population densities drive economic viability of land uses and public transport.

All of the above point to how critical it will be to integrate transport planning with planning and design for land uses, built form etc. in guiding Bakery Hill's urban renewal.



(SOURCE: Ballarat Cycling Guide and PTV website)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

LOCAL MOVEMENT: CAR PARKING

Preliminary findings:

The Bakery Hill Study area is composed of at least four hectares (i.e. 4% gross) of open air onsite car parking. The area devoted to car parking will be much greater once on-street car parking is factored in, and the at-grade and multi level parking at the train station is calculated.

The car parking that exists is either associated with onsite buildings and their activities, or has informally appropriated vacant sites. Almost all of the parking appears to have been created through the demolition of buildings, as made evident by obsolete building footprints in old spatial data (GIS, CoB).

It is acknowledged that some car parking is needed in any neighbourhood for those locals on the go, during inclement or hot weather, for people who are frail, for visitors from further afield, and to facilitate deliveries to businesses and residents. The principal issue with the car parking in Bakery Hill is not only its apparent abundance, but also:

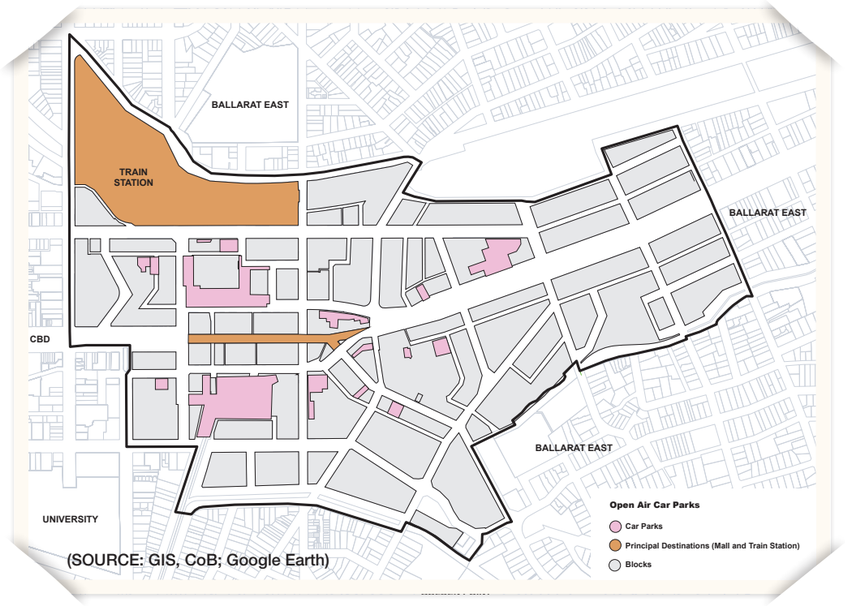
- The loss of building fabric to a land use with no cultural significance or potential cultural legacy (although there are exceptions, e.g. University of Melbourne Union Lawn Car Park).
- The fact that it has replaced buildings that once occupied people and land use activities - places for social, cultural and economic exchange are now places of vehicle storage.
- The environmental costs associated with urban heat island effect and the lack of permeable surface area to absorb stormwater.

Preliminary recommendations:

The preliminary findings point to the need for an onsite car parking policy and action plan that:

- Sets maximum limits to the number of car parking spaces permitted onsite and allows for new car parking for particular land uses.
- Sets a maximum site area coverage for paved surfaces.
- Guides the design of parking structures for future adaptive reuse to occupied tenancies (e.g. in the floor to ceiling heights and building depth).
- Provides landscape design and management guidelines that aim to mitigate urban heat island, absorb stormwater run off and function as part of the local to district ecological corridors.
- Offers incentives for infill development of productive land uses and flexible building typologies on existing car parking sites.

Addressing the high provision of parking will also need a longer term strategy that targets car dependence. The primary factors in changing transport modal choice will be convenience, cost and safety, but the quality of streets as attractive corridors for slower modes of travel (i.e. walking and cycling) will also be critical.



(SOURCE: GIS, CoB; Google Earth)

OPEN SPACE

What is it?

Open space is communal social space that is accessible to all people, at ground level and open to the sky. It may include streets (e.g. Victoria Street), laneways and alleys (e.g. Time Lane), urban squares and malls (e.g. Bridge Mall), parks and gardens (e.g. Civic Park), and waterways (e.g. Yarrowee River).

Importance

Open space is important for offering opportunities to socialise with people or finding respite, for exercise, and for relaxation that are all critical to our wellbeing. Increasingly, the functional qualities of open space as productive landscapes, as "sponges" to absorb water, mitigators of urban heat island effect and as habitat are important as cities and towns become more urbanised.

Victorian trends and impacts

The encroachment of urbanisation on natural landscapes makes reserving land for open space more and more critical, but it is possible to retrofit open space in even the most urbanised of environments.

There is a growing understanding of traditional Aboriginal management practices of the landscape, and the importance for authentic local landscapes composed of indigenous plant species. Such design and management demonstrates how open space can function as habitat for fauna, as protection to increasingly rare plant species (e.g. orchids) and for people by offering connections with nature and improving our awareness of Victoria's ancient cultural landscape. There is also potential for reducing our vulnerability to destructive summer time fires through learning from and applying traditional fire management practices.

How it is being investigated

The traditional focus of researching open space is in its design for leisure/recreation and associated public life, but for Bakery Hill we are investigating the size, types and numbers of open space for their contribution to the 10 minute neighbourhood[1].

[1] We are also developing an indicator to determine how open space functions as habitat, an area of research with many information gaps that will draw from the author's research on understanding the pre contact landscape of the Yarra River (*City River Project*, CoM 2019), research of habitat regeneration in City of Banyule, and involvement in surveys of the endangered Eltham Copper Butterfly on remnant bushland in City of Banyule.

SIZE OF OPEN SPACE

TYPES OF OPEN SPACE

No./DISTRIBUTION OF OPEN SPACES

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

OPEN SPACE: TYPES

Preliminary findings:

The diversity of open space types in and around the Bakery Hill study area is limited. The predominant type (by number) is lineal landscaping such as median and street tree planting. Sportsgrounds are the second most common, and parks the third. There is only one playground and there appears to be no landscape habitat (based on primary functions of open space rather than the range, type and layering of plant species).

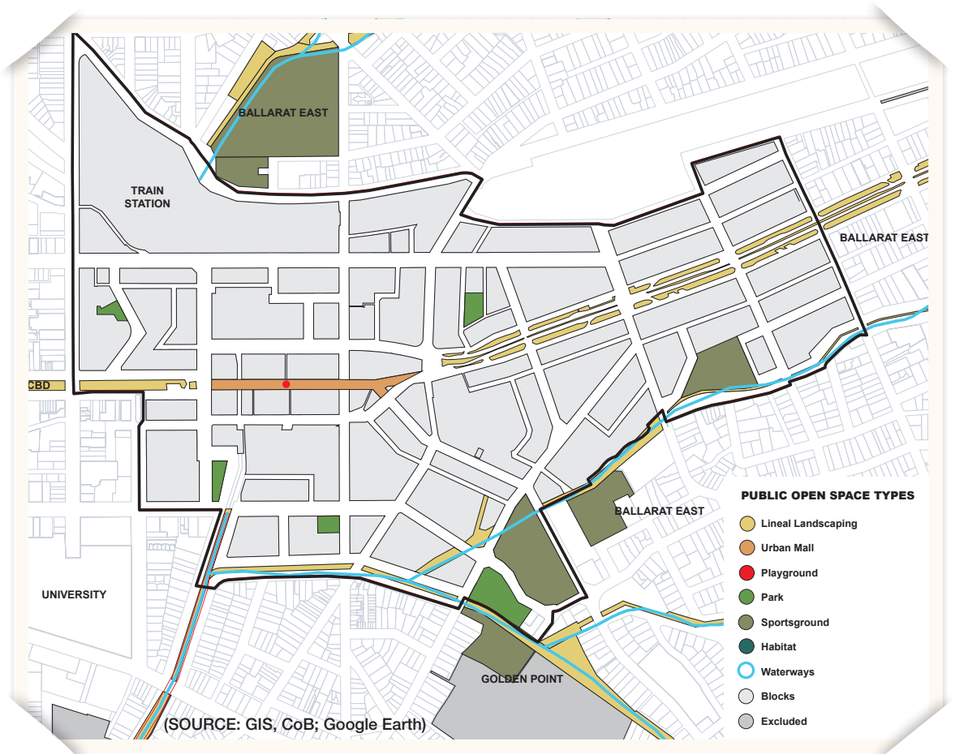
The principal form of open space, lineal landscaping, offers the benefits of an attractive green aesthetic, shade over the road reserve, and if the tree species are right, ecological corridors that connect between habitats. In Bakery Hill and Ballarat East, street planting is characterised by exotic trees, exotic perennials and annuals, and lawn, which all preclude the street from functioning for fauna, and are resource intensive for irrigation and maintenance.

The preliminary data:

Lineal Landscaping	61.8%
Urban Mall	1.3%
Playground	1.3%
Park	7.9%
Habitat	0.0%
Sportsground	7.9%
Excluded	19.7%

Preliminary recommendations:

Please refer to page 62 for all open space recommendations.



(SOURCE: GIS, CoB; Google Earth)

OPEN SPACE: SIZE

Preliminary findings:

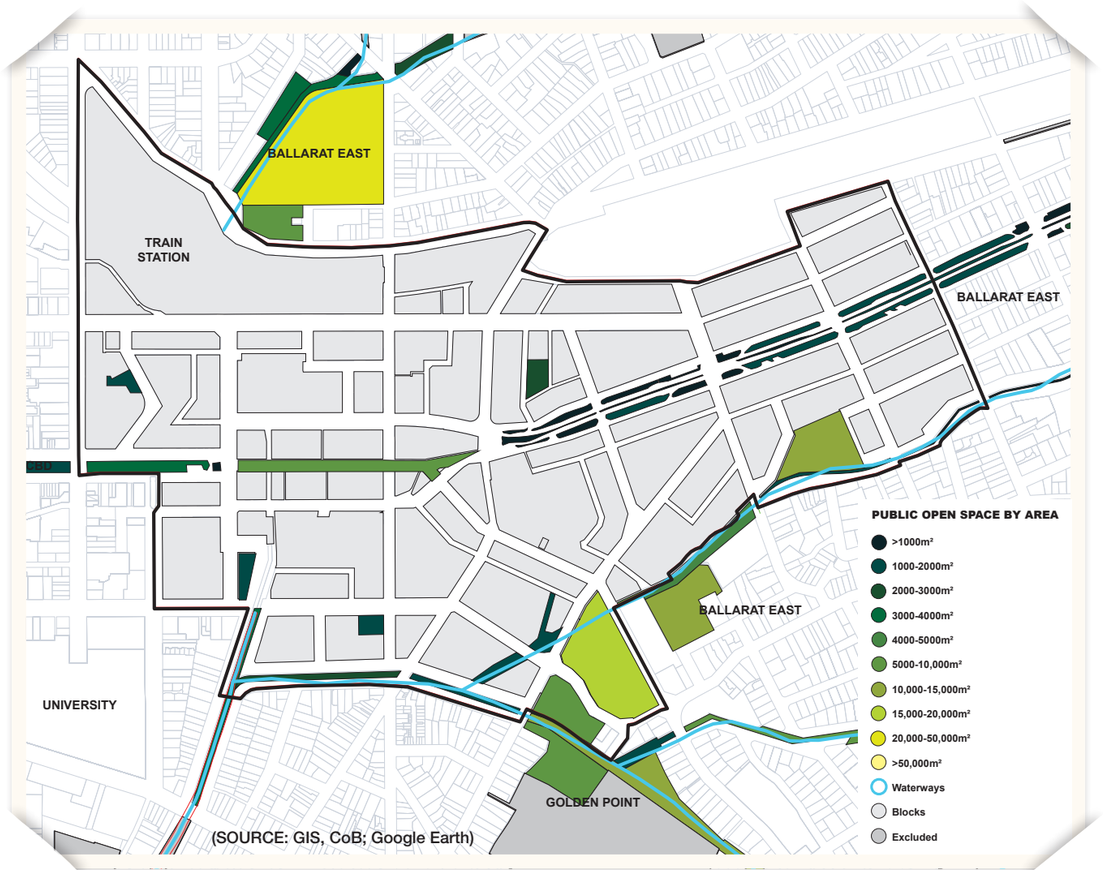
The early data shows that there is a good range of small to medium sized open spaces (below 2000msq or 1/2 an acre). There are four parks that are small enough to not disrupt the grain of the urban structure by fitting well into existing blocks, and have the potential to be highly inviting local places.

The preliminary data:

<1000m²	27.6%
1000-2000m²	25.0%
2000-3000m²	6.6%
3000-4000m²	5.3%
4000-5000m²	1.3%
5000-10,000m²	7.9%
10,000-15,000m²	3.9%
15,000-20,000m²	1.3%
20,000-50,000m²	1.3%
>50,000m²	0%
Excluded	19.7%

Preliminary recommendations:

Please refer to page 62 for the open space recommendations.



(SOURCE: GIS, CoB; Google Earth)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

OPEN SPACE: DISTRIBUTION

Preliminary findings:

The early research into open space has revealed that there is a poor diversity of open space types, but a number of small to medium sized parks that fit within existing blocks. The map opposite shows the location of open space (*green*), streets (*cream*), buildings (*black*) and private unbuilt space (*grey*). This combination of layers starts to reveal possible opportunities for additional open space that may be inserted within the existing urban structure and built form, with possible surplus road space being a short to medium term option to start converting asphalt to functional and attractive places for people and fauna. The initially identified sites marked in red need to be ground truthed in the field.

Preliminary recommendations:

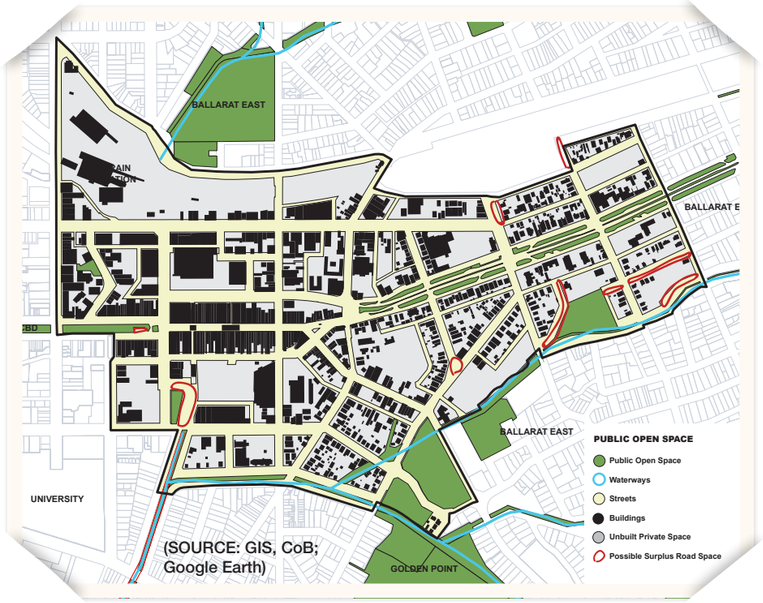
Based on the early research, the following recommendations are made to augment the existing open space in numbers, types and distribution:

Design

- Identify surplus road reserve to create small, local pocket parks (below 1/2 acre size). E.g. remove one side of on-street car parking to establish small open spaces, locating these on the sunnier side of the street (i.e. southern or eastern side).
- Consult with locals to determine the type of spaces they would like to have, and whether there is interest for residents, students and businesses to manage aspects of the spaces for their community (e.g. food allotments, adventure playgrounds, skate parks, and indigenous habitat).
- Establish ecological corridors along the waterways and as part of street planting. These spaces should be layered with varied indigenous and native plant species (canopy, middle storey and ground storey).
- Investigate incentives for property owners to offer their sites as temporary parks if there is a protracted period of time (e.g. >12 months) between demolition and construction. This appears to be a particular issue for the eastern part of the study area.

Strategy and Guidelines

- Determine the types of open space needed for locals, where this space should be located and how it should be implemented.
- Prepare a plant catalogue for each type of open space identified in the open space strategy, designed to improve the functionality of all open space as attractive places for people and as habitat / ecological corridors.



(SOURCE: GIS, CoB; Google Earth)

LAND USES

What is it?

Local land uses are those within a walkable (local) area. They give purpose to local trips, fostering economic exchange, social interaction, sense of community and connection to place (CoM, 2015b). The diversity of land uses on offer that are important to daily life (e.g. baker, fruit shop, chemist, newsagent, schools, doctors…), determine the ability of people to locally meet their everyday needs.

Importance

The variety and type of land uses within a local area are fundamental to walkability and overall quality of life. Of particular importance for creating locally-based opportunities for exchange and reciprocation, are those essential land uses that meet daily needs and generate production (CoM, 2014).

Victorian trends and impacts

Since post WWII there has been a trend towards urban growth in the form of single use developments within segregated land use precincts, and favouring of corporate 'big box' retail and large businesses over diversified and small-scale locally-oriented economies. This trend has been facilitated by planning scheme land use zones but also market trends. This form of growth has led to a decline in the mix of land uses and the variety required to sustain local communities, leading to a low proximity between everyday activities, including essential services and amenities. This form of urban growth has led to:

- The need to travel to multiple destinations at long distances beyond the local area, in order to meet every day needs.
- Dependence on fossil-fuelled travel.
- Health, environmental and social costs due to car dependence.
- A growth in consumption-oriented land uses, and decline in productivity and those skills associated with it, has compromised the long-term economic resilience of local areas.

Ultimately, all of these trends and the impacts that follow, erode the city's locally based social, cultural and economic networks of exchange and support, which are critical to identity and meaning, and in connecting places and people.

How it is being investigated

Bakery Hill is being investigated for the:

- Diversity of land use types.
- Number of land uses.
- Number of essential land uses.

These conditions are proven indicators of the performance of local land use, but also of a neighbourhood overall. The reason that the section on land uses is presented last in this paper is because the land uses that exist in a local area are influenced by all other indicators: Urban Structure, Built Form, Local Movement and Open Space.

DIVERSITY OF LAND USES
No. OF LAND USES
No. ESSENTIAL LAND USES

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

LAND USES: DIVERSITY AND NO. OF LAND USES

Preliminary findings:

The early research shows that the predominant land uses are retail (17.1%) and housing (29.7%). While there is some mix in land uses, similar activities tend to be clustered together such as car yards and showrooms (Mair Street), retail (Bridge Street), industry (Mair Street), housing (east of Peel Street), and schools (east of Peel Street). Fieldwork will capture more detailed data to assess the number and diversity of what land uses exist within Bakery Hill's walking catchments, so as to determine what everyday needs can be met in close proximity to locals[1].

The data shows evidence of transitioning economies in the form of demolished buildings and vacant sites; several vacant properties have been appropriated for informal off street car parking.

The preliminary data:

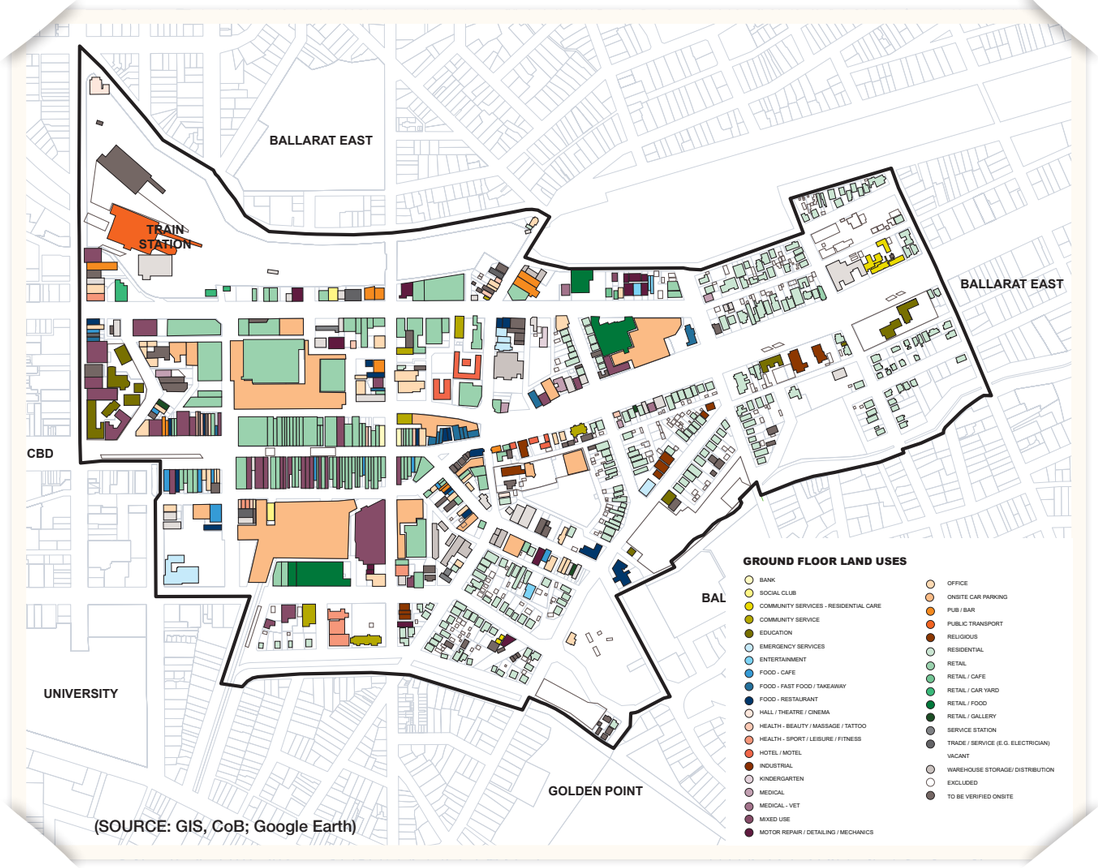
Public Transport	1
Emergency Service	5
Religious	12
Community Service + Care	13
Education and Kinders	13
Leisure / Entertainment	22
Health and Medical	27
Vacant	34
Mixed Use	35
Industrial	36
Commerce	41
Food	41
Excluded as Demolished / Unbuilt	54
Don't yet Know	71
Retail	126
Residential	219

Preliminary recommendations:

In determining the types of land uses needed in Bakery Hill, the urban renewal plan should consider the land uses that exist alongside the:

- Existing population density.
- Projected population growth based on a range of scenarios (i.e. low, medium and high change).
- Building stock in condition, age and floor area.
- Acceptable change to the existing built form in height and massing.
- The supporting infrastructure that exists and would be required, such as public transport, libraries and kindergartens.
- Ways in which to attract the land uses needed to support local access (e.g. incentives and project partnerships for adaptive reuse of existing buildings).

[1] **Fieldwork can only help map apparent land uses (mainly at street level) - it will be unable to reveal the true vertical mix of activities.**



(SOURCE: GIS, CoB; Google Earth)

7. BAKERY HILL'S PERFORMANCE AS A LOCAL NEIGHBOURHOOD TODAY (2019)

Through the research outlined on the preceding pages, three main sets of urban conditions are currently found in Bakery Hill: (1) Mixed character with large areas of open air carparking; (2) Historic Shops; and (3) Suburbia. Each of the three types present opportunities and challenges to Bakery Hill's urban renewal, with those **conditions most conducive to the 10 minute city** in **green** and the **least conducive** in **red** for representative locations below.

1. MAIR STREET

Mixed uses and character with potential for mixed use infill growth.

URBAN STRUCTURE A fairly coarse urban structure where there has been site consolidation for big box redevelopment, but retaining laneways that provide useful north-south and east-west links.

No. PARCELS	23
No. BLOCKS	4
No. INTERSECTIONS	13

BUILT FORM A variety of building eras and building types, which are principally low rise. Some deep building footprints that will be difficult to adapt to different activities over time.

No. BUILDING ERAS	5
No. BUILDINGS WITH MIXED ERAS	2
No. BUILDING TYPES	10
APPROX. BUILT AREA vs. UNBUILT AREA	58.8% vs. 41.2%
No. ONE STOREY vs. TWO STOREY	19 vs. 4
No. BUILDINGS >24m DEEP	3

LOCAL MOVEMENT Within 10 minutes walk to public transport, but currently dominated by open air car parking. There are no formal bicycle lanes.

OPEN SPACE No public open space but much unbuilt land.

LAND USES Principally commercial land uses with very few residences, even though in a location perfectly suited to mixed use development due to close proximity to shops, public transport and the university. Several buildings accommodate a mix of land uses.

No. LAND USE TYPES	8
No. BUILDINGS WITH MIXED LAND USES	10

2. BRIDGE MALL

Retail mall with potential for mixed use infill growth.

URBAN STRUCTURE A fine urban structure with north-south laneways on both sides of the mall.

No. PARCELS	59
No. BLOCKS	7
No. INTERSECTIONS	16

BUILT FORM A variety of building eras and types, which are currently difficult to read due to architectural modifications. Principally two storey attached shop tops thought to be under-occupied above street level. The attached long buildings present a challenge to adaption, which can be overcome through skylights, courtyards and upper storey extensions.

No. BUILDING ERAS	4
No. BUILDINGS WITH MIXED ERAS	31
No. BUILDING TYPES	7
APPROX. BUILT AREA vs. UNBUILT AREA	93.5% vs. 6.9%
No. ONE STOREY vs. TWO STOREY	16 vs. 49
No. BUILDINGS >24m DEEP	1

LOCAL MOVEMENT Within 10 minutes walk to public transport. There is very little onsite car parking behind Bridge Mall. There are no formal bicycle lanes.

OPEN SPACE The Mall is classified as reserve, and provides the only playground in Bakery Hill. Functioning as an open space rather than a local high street, connectivity is currently compromised.

LAND USES Principally retail land uses with no apparent residences, even though in a location perfectly suited to living due to close proximity to shops, the university and public transport, and desirable human scaled and historic urban character. Many buildings accommodating a mix of land uses.

No. LAND USE TYPES	6
No. BUILDINGS WITH MIXED LAND USES	46

3. GENT STREET

Suburban character with potential for infill residential growth.

URBAN STRUCTURE A fairly coarse urban structure due to wide streets
and an absence of through block laneways.

No. PARCELS	42
No. BLOCKS	2
No. INTERSECTIONS	6

BUILT FORM A variety of building eras but dominated by low rise detached housing.

No. BUILDING ERAS	6
No. BUILDINGS MIXED ERAS	0
No. BUILDING TYPES	4
APPROX. BUILT AREA VS. UNBUILT AREA	42.4% vs. 57.6%
No. ONE STOREY vs. TWO STOREY	34 vs. 2
No. BUILDINGS >24m DEEP	0

LOCAL MOVEMENT Within 10 minutes walk to public transport. Houses all appear to have onsite parking. There are no formal bicycle lanes.

OPEN SPACE No public open space - private open space is associated with each house. The lack of public open space means there are no local places to meet and socialise outdoors.

LAND USES Principally a suburban residential section with evidence of a past school (now vacant). The low density of this section and other blocks like it present a significant challenge to increasing the population catchment and so improving land use viability and mix in Bakery Hill.

No. LAND USE TYPES	4
No. BUILDINGS WITH MIXED LAND USES	1

8. SUMMARY OF FINDINGS

The story so far…

LIFE ON 'THE FLATS'

- Seeking gold and a better life
- Transience to permanence
- Rivalry between East and West Ballarat
- Intercultural melting pot
- Birthplace of Australian democracy
- Fighting for opportunity
- The makings of a rebellion

CONNECTING PLACES AND PEOPLE

- Many roads lead to Bakery Hill
- Getting around
- View lines

UTILISING THE LANDSCAPE

- Mining for gold
- Food bowl
- Bridging the Yarrowee

EPICENTRE OF THE EAST

- A thriving commercial precinct
- Civic heart
- Creating order from chaos

THE STRUCTURE, BUILT FORM, NATURAL ENVIRONMENT AND PEOPLE-CENTRED DEVELOPMENT

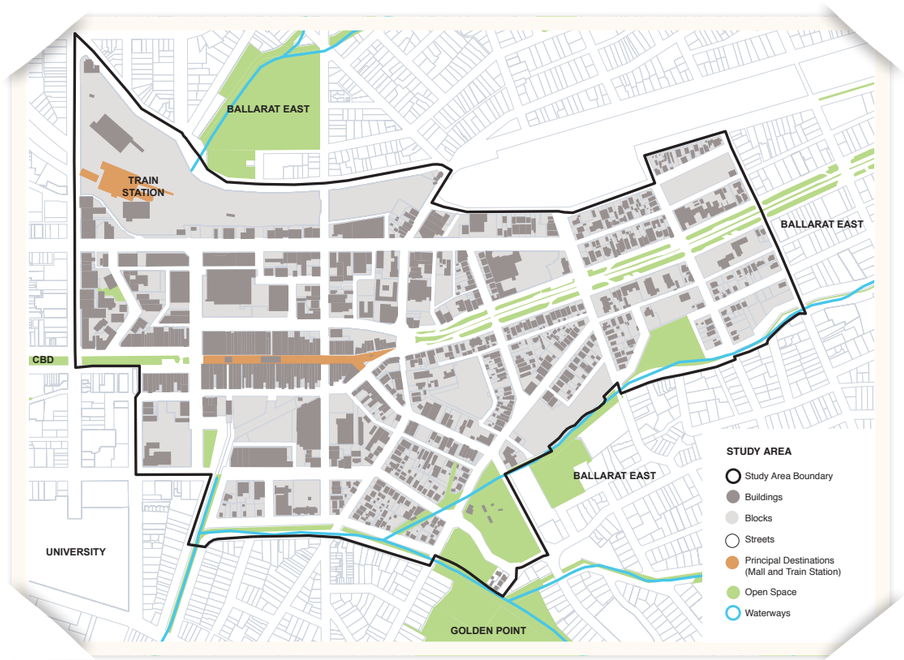
Where to from here? Bakery Hill 2019-2050

The early research outlined in this report supports CoB's direction for urban renewal in Bakery Hill. Bakery Hill is particularly well suited to revival as a 10 minute walkable neighbourhood due to its close proximity to the train station, the CBD and Federation University, and its remnant framework of an historic local place: a fine urban structure and variety in built form, but with local transport modes, open space and land uses in need of direction to guide meaningful and sustainable change.

It is acknowledged that not all areas of Ballarat can be 10 minute local neighbourhoods. It is therefore critical to identify those locations like Bakery Hill that may evolve as 10 minute neighbourhoods, and to design, plan and manage them so that they evolve into and prosper as vibrant local neighbourhoods and district destinations.

Research into Bakery Hill will generate rigorous performance-based evidence to guide spatially specific urban change that will enable Ballarat to achieve its commitment to the community for 10 minute local access (CoB, 2017:4). While too early to outline a plan for urban renewal, our initial ideas are to:

- Maintain a fine grained urban structure.
- Adapt and re use historic buildings, while allowing for infill growth in a scale appropriate to the established character.
- Focus urban growth on increasing the local population catchment to improve the viability of local land uses and infrastructure.
- Connect neighbourhoods to each other and to primary north-south and east-west links via walking paths, bicycle lanes and public transport. Create attractive landscaped connections that offer shade for people and habitat for fauna, which provide enjoyable and desirable routes between neighbourhoods.
- Plan and design sites for human occupation first and car parking second. There should be no site whose primary function is car parking. All sites should offer a land use that is active and productive.
- Design car parking for future adaptation to other land uses to insure against obsolescence. Building footprint depths and widths will need to be controlled within a maximum range.



9. INSPIRATION PALETTE

The following images have been included to provide inspiration for renewing the area in a totally unique way by building from Bakery Hill's distinctive legacy and story.

Bakery hill's historic ingredients

FORM

1. **A traditional street structure** composed of footpaths, parking and carriageways that form a logical and time-tested composition (at least since the Roman Empire). Predictability in the street structure supports accessibility for all people (particularly those who are vision impaired).
2. **Post supported verandahs** define outdoor space both horizontally (canopy) and vertically (colonnade of posts). Verandahs offer pedestrians shade and protection from inclement weather, can shade shop stock from fading, and create a unified "streetscape" across different building forms and styles. Verandahs may also help limit signage placement and the scale of signage.
3. **Post supported verandahs** are sometimes associated with **balconies**, which allow for outdoor activities that do not encroach on pedestrian access at street level.
4. **Buildings have a consistent setback** that strongly defines outdoor space with a "street wall".
5. **A human-scaled urban place c**omposed of many buildings and streets, and with variegated layers that document change over time in styles, materials, roof lines, etc. Bakery Hill was intricate, local and walkable.

ACTIVITY

6. **Fixed rail public transport** such as trams supported the flourishing Victorian era city - providing easy access through local neighbourhoods and connecting with surrounding areas.
7. Tram networks served as "anchors" that attracted clusters of higher density and mixed development of shops, workshops, offices, and residences, for example, which offered locals many of their essential daily needs.
8. Streets and hotels provided places to meet and socialise with other locals. Traffic moved more slowly through streets, allowing people to linger and walk more safely over the road.

- LAND USES
- STREETS
- PUBLIC TRANSPORT

Image sources:
State Library of Victoria.

Bridge Street – Streetscapes looking east

9. INSPIRATION PALETTE

Bridge Street – Streetscapes looking east

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