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Victorian Miners' Housing Serial Listings - Stage 2 Study Findings and Recommendations

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CONTENTS

1	Introduction and Background	3
1.1	Introduction	3
1.2	Background	5
1.3	Study Limitations	6
2	Methodology	7
2.1	Overview	7
2.2	Understanding the Typology for Each Serial Listing	7
2.3	Survey	9
2.4	Additional Historical Research	10
2.5	Assessment Against Criteria	10
2.6	Applying a Threshold of Significance	11
2.7	Gradings Within the Serial Listing	14
2.8	Statements of Significance	15
3	Key Findings	17
3.1	Local Significance	17
3.2	Non-contributory Graded Properties	18
3.3	Other Properties that Fail to Qualify	18
3.4	Statutory Controls	20
4	Recommendations	21
4.1	Introduction	21
4.2	Future work	21
4.3	Miners' Cottages - Bendigo, Ironbark, Long Gully, North Bendigo and West Bendigo (Ironbark Miners' Cottages). Revised HO999	22
4.4	Quartz Gold Boom Miners' Houses	38
4.5	Workers and Mine Speculators' Houses	50
4.6	Quartz Reefers' Houses	62
Appendix A	Summary of Contributory and Significant Graded Properties	73



1 Introduction and Background

1.1 Introduction

Trethowan have been commissioned to undertake a *Stage 2 Heritage Study of Victorian Mining Cottages* in the City of Greater Bendigo. This study builds directly upon previous research that formed Stage 1 of this study which consisted of:

- *Miners Cottages Gap Study* (Miners Cottage Survey) undertaken by Minerva Heritage in 2017 that surveyed those Victorian dwellings in urban Bendigo not currently covered by the Heritage Overlay to create a long list of approximately 574 individual properties
- Review of this initial long list by City of Greater Bendigo to identify those properties associated with a Miners Residency Area
- Analysis and further review of this refined list by Amanda Jean and Charles Fahey in the 2020 report *Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing* (hereafter termed the Serial Listing Study)

The Serial Listing Study identified a total of 229 candidate places, and recommended the creation of three new serial listings and expansion of the existing miners' cottages serial listing (HO999) to create a total of four serial listing heritage overlays, as described below:

- Quartz Gold Boom Miners' Houses.
Modest timber frame, weatherboard, hip roof houses associated with the 1870s quartz mining boom and the 1865 Mines Act and 1181 Residence Areas Act.
- Workers and Mine Speculator's Houses.
Increasingly opulent housing styles due to increased security of tenure. Housing associated with later opening of mining land to non-mining manual and skilled workers, and widows of miners, associated with the Mines Acts of 1890, 1892, 1897 and 1910.
- Quartz Reefer Houses.
Early colonial regency style houses built by successful miners, speculators and quartz reefers. Usually built very close to their mines. Usually built of brick or stone.
- Miners Cottages (amended Ironbark listing (HO999)).
All early gable roofed miners' cottages associated with the Miner's Rights Act 1855 and the Mines Act 1856, and with alluvial, puddling and early quartz reef mining.

Purpose of Current Study

The purpose of this Stage 2 Heritage Study is to:

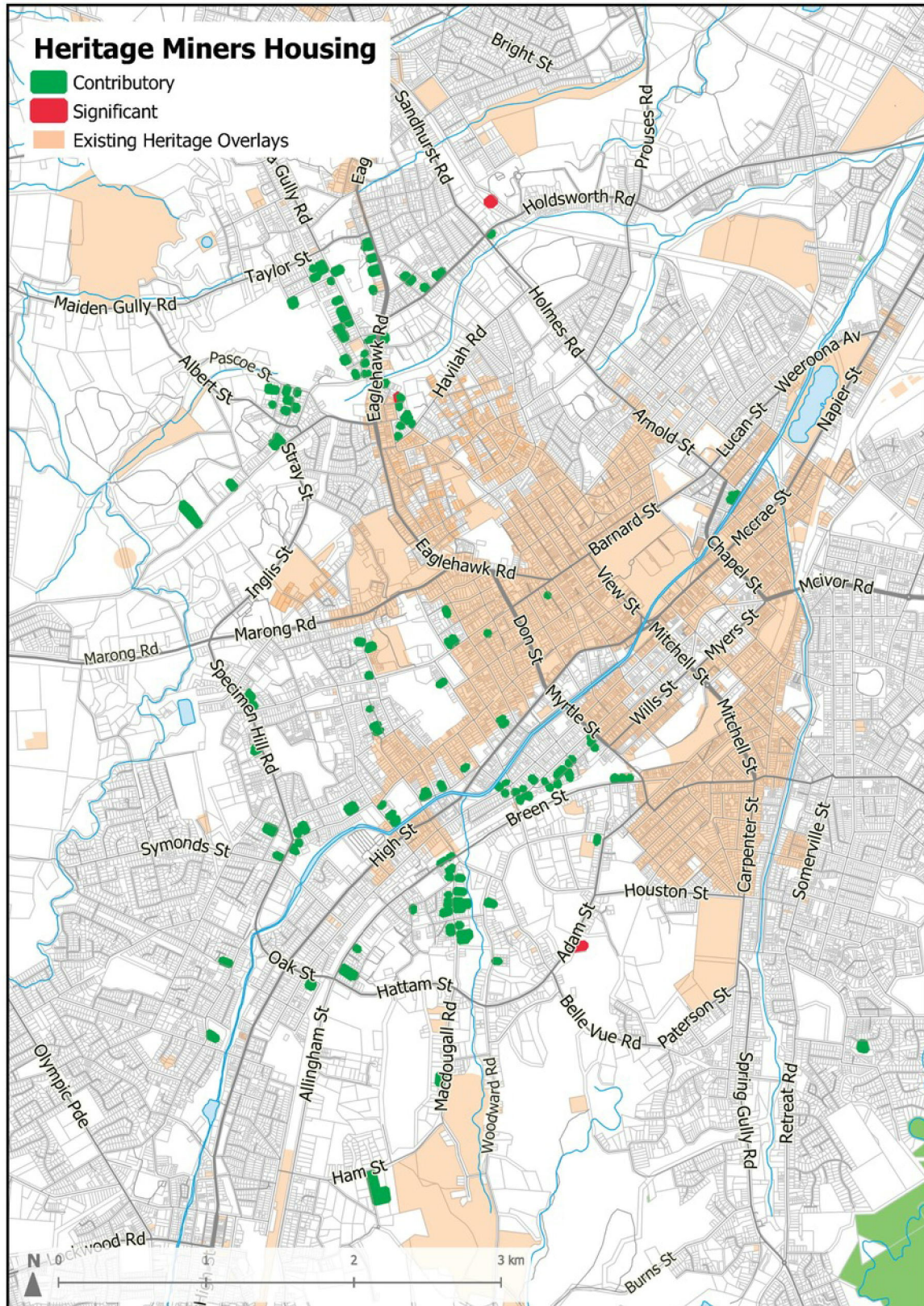
- Review the list of houses from the Miners Cottage Gap Study 2017 (Miners Cottage Survey) and determine which ones fit into one of the recommended serial listings
- Determine a threshold of protection of places for each listing that includes condition, intactness, land zoning and any other relevant considerations
- Provide sufficient justification to support the houses going into the serial listing Heritage Overlays of the Greater Bendigo Planning Scheme
- Include any additional properties identified during the course of the study

Study Area

The Study Area is the pre-amalgamation boundary of the former City of Bendigo. The serial listing approach, and the scattered nature of mining throughout the district, means that the study area is spread across a number of suburbs. The houses are sometimes, though not always, clustered around former mine sites. A total of 229 individual candidate properties were assessed (identified in the Miners Cottage Survey), distributed across the following suburbs:

- Bendigo (central)
- Flora Hill

- Golden Gully
- Golden Square
- Ironbark
- Long Gully
- North Bendigo
- Quarry Hill
- West Bendigo



1.2 Background

The Stage 2 Study builds on a series of heritage studies commissioned by the City of Greater Bendigo since the early 1990s that have identified and sought to apply appropriate protection to the City's post-contact built cultural heritage. Given the large area covered by the City, these studies have generally focused on single suburbs or discrete districts. Such area-based heritage studies have been supplemented by a series of strategically focussed gap and thematic studies that have highlighted areas and/or building typologies requiring further research to address the 'patchwork' of knowledge that currently exists.

The following list summarises the heritage studies, surveys and reports currently available that apply to Greater Bendigo that form the background, analysis and benchmarking opportunities to this report. Both the *City of Greater Bendigo Heritage Gap Analysis*, 2019 (Landmark Heritage Pty Ltd with David Helms) and the *Serial Listing Study 2020* provide a detailed summary and analysis of the vast body of historical research that is represented by these studies:

- *Eaglehawk and Bendigo Heritage Study*, 1993, Graeme Butler & Assoc.
- *Former Shire of Marong Heritage Studies*, 1994 and 1999, Andrew Ward & Assoc; and reviewed by the *Heritage Policy Citations Review*, 2011, Lovell Chen
- *Former Shires of Mclvor and Strathfieldsaye, Heathcote-Strathfieldsaye Heritage Study: Stage 1*, 2002, Earthtech
- *Former Shires of Mclvor and Strathfieldsaye Heritage Study: Stage 2*, 2010, Context Pty Ltd.
- *Ironbark Heritage Study*, 2011, Mandy Jean
- *Greater Bendigo Thematic Environmental History, Overview Report and Aboriginal History*, Lovell Chen, 2013
- *White Hills and East Bendigo Heritage Study Stage 1*, Bendigo Hospital Area, 2014, Lovell Chen
- *White Hills and East Bendigo Heritage Study Stage 2*, Ascot, Bendigo, East and North Bendigo Epsom and White Hills, 2016, 2 vols, Context Pty Ltd:
- *The Miners' Cottage Gap Study*, 2017/18, Minerva Heritage
- *Golden Square Heritage Study Stage 1 Chronological and Thematic History*, 2019, Dr. Robyn Ballinger
- *City of Greater Bendigo Heritage Gap Analysis*, 2019 Landmark Heritage Pty Ltd with David Helms
- *Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing*, 2020, Amanda Jean and Charles Fahey

The overall approach to identifying heritage has shifted dramatically since the 1993 Eaglehawk study that relied upon, as its starting point, a much more architecturally focused notion of heritage significance. Eaglehawk and Bendigo - they were still separate councils at that time. More recent studies have sought to more fully take account of the myriad social and historical factors that have resulted in the diverse typology of buildings that reflect Bendigo's mining past. This more closely reflects the best practice approach adopted in *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, 2013 (The Burra Charter) that shifts the focus from the identification and conservation of built fabric to more fully embrace those cultural values (aesthetic, historic, scientific, social, and spiritual) that contribute to the significance of a heritage place.

Despite this shift in approach, studies have continued to largely favour exemplars while overlooking the more modest miners' housing that is found across most areas of Bendigo. In addition, the disparate and widespread nature of miners' cottages has also meant that they are, generally speaking, not clustered into easily delineated areas that can be managed via a more traditional Heritage Overlay 'precinct'. Rather, the 2020 Serial Listing Study and 2019 Heritage Gap Analysis have both recommended the appropriateness of a 'serial listing' approach that groups together properties based on a common typology and history rather than geographical clustering (for example, a significant streetscape).

Serial Listing Approach

The serial listing approach adopted in this study builds upon the previous work undertaken in preparing the existing serial listing Heritage Overlay *Miners' Cottages* (HO999) as part of the 2011 *Ironbark Heritage Study*. This Heritage Overlay links together heritage places across a number of suburbs that share a common developmental history and built form.

Serial listing presents a unique set of challenges when compared to the identification of 'precinct' or 'individual' heritage overlays. It recognises the collective significance of a group of heritage places that are not necessarily clustered into readily recognisable precincts.

The Victorian *Planning Practice Note No. 1 'Applying the Heritage Overlay DELWP'* (2018) (Practice Note) provides the following guidance in relation to group, thematic and serial listings:

Places that share a common history and/or significance, but which do not adjoin each other or form a geographical grouping may be considered for treatment as a single heritage place. Each place that forms part of the group might share a common statement of significance; a single entry in the Heritage Overlay Schedule and a single Heritage Overlay number.

1.3 Study Limitations

The key limitations of the Stage 2 Study are:

- Places were only investigated externally and from the public realm; the result is that all descriptions are primarily based on observations of the front facade and partial side facades, with more limited opportunity to describe rear elevations
- In addition, some properties were set back from the street behind vegetation or other obstructions and could not be clearly assessed from the public realm
- The large geographical study area, and vast number of properties surveyed, means that this study may not have identified all potential candidate sites
- The identification of original building material was difficult for dwellings that had undergone extensive renovation and addition; in many cases modern materials have replaced or obscured original fabric

2 Methodology

2.1 Overview

The Victorian Miners' Housing Serial Listing Stage 2 Study: Findings and Recommendations (the 'Victorian Miners' Housing Study') was prepared in accordance with *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Heritage Significance* (the 'Burra Charter') and the Victorian *Planning Practice Note No. 1 'Applying the Heritage Overlay DELWP'* (2018) (the 'Practice Note'). This has been consistent with the methodology outlined by the City in the Study Stage 2 brief 2020. As a result, the following steps were undertaken and are detailed in this section:

- Understanding the typology for each serial listing
- Street level survey of all places identified in the Serial Listing Study 2020
- Additional historical research
- Assessment against HERCON Criteria
- Assessment against Threshold of Significance based on Comparative Analysis
- Recommendations for each property and citation.

2.2 Understanding the Typology for Each Serial Listing

In order to effectively identify, sort and assess each place in relation to the four proposed serial listings, a range of characteristics of each type was established based on the analysis and history in the Serial Listing Study 2020 (Table 1). A desktop review was undertaken of all the information provided from Council in relation to the Miners Cottage Gap Study 2017 Stage 1 survey and contextual reading of *Eaglehawk and Bendigo Heritage Study* (1993); *Ironbark Heritage Study* (2010); *Greater Bendigo Thematic Environmental History* (2013); *The Evolution of Housing on the Bendigo Goldfields: A case for serial listings* (Serial Listing Study 2020) and any other relevant documents to provide a good base understanding of the municipality and the project.

Trethowan then conducted a desktop review of each of the 229 places to assist in breaking the information down into the three proposed serial listing Heritage Overlay areas: Quartz Gold Boom Miners' Houses; Workers and Mine Speculator's Houses and the Quartz Reefer Houses; and the proposed amendment of the Miners Cottages (HO999). The 229 places were reviewed against the statements of significance, findings, typologies, and linkages identified in *The Evolution of Housing on the Bendigo Goldfields: A case for serial listings*. These typologies can be summarised as follows:

Ironbark Serial Listing

These early houses (1860s-1870s) were historically associated with settlement under the Miner's Rights 1855 and Mines Act 1856. They generally began as small one or two bedroom huts with simple gable end roof forms. These cottages were often of weatherboard with few or simple decorative features, with common variations including mud brick or stone walling made by German or Cornish miners respectively. Chimneys were often external. Common alterations or additions include rear gable additions, front verandahs, rear skillions or later decorative detailing. Other building materials could include handmade red brick, local stone, mine slag or mud pisè bricks. These cottages most commonly exist in Long Gully, Victoria Hill, Ironbark Hill and Golden Gully areas.

Quartz Gold Boom Miners' Cottages

These houses were historically associated with the 1870s quartz mining boom and extend into the 1880s. Generally beginning as square plan houses with two to four rooms, with verandahs, they typically were of modest proportions, constructed with commercially sawn weatherboards, with hip roofs of corrugated metal and some fashionable contemporary architectural detailing. Chimneys were by this time generally internal and common later additions were to the rear or side, with later decorative embellishments or new verandahs. These houses often constituted

small settlements around the main mine shafts and battery buildings, sometimes with no formal alignment with later street patterns that evolved afterwards.

Workers and Mine Speculators' Cottages

These houses were historically associated with the late expansion of the Residence Area that opened auriferous land for habitation to non-miners and skilled workers and women holders of Crown land leases in the 1890s. These houses were often larger cottages of 5-8 rooms sometimes set in large gardens. Materials continued to be chiefly weatherboard walls and corrugated metal roofs with internal chimneys, but with more complex roof forms comprising combinations of hip or gable forms, more ornate verandahs and decorative detailing. These houses appear around Bendigo.

Quartz Reefers

Rather than being limited to a particular period of the gold mining history of Bendigo, these houses were historically associated with particular reefers and investors who built their homes near the mining tenements and mines across the district, who took advantage of the Mines Act 1865 to convert their Miner's Rights to freehold. These houses could be small or large but tend to be grander in style and more decorative. They commonly could include Colonial Regency style characteristics, encircling verandahs, are well articulated or architecturally designed. Comprised of brick or stone, they commonly have more complex roof forms and could be built in phases. These houses were spread around the quartz mining areas with many near mining tenements and might be oriented towards the mine rather than the road.



Figure 1. An example of an Ironbark Cottage (Source: *Evolution of Housing Serial Listing Study 2020*)



Figure 2. An example of a Quartz Gold Boom cottage (Source: *Evolution of Housing, Serial Listing Study 2020*)



Figure 3. An example of a Workers and Miners Speculators cottage (Source: *Evolution of Housing Serial Listing Study 2020*)



Figure 4. Example of a Quartz Reefers house currently covered by the Heritage Overlay at 44 Bellevue Road (Source: *Evolution of Housing Serial Listing Study 2020*)

Table 1. Summary of characteristics (built form) associated with each of the proposed serial listings (Source: *Evolution of Housing Serial Listing Study 2020*). These are the general characteristics identified with each typology, however there may be exceptions to the materiality in some historical periods.

Category	Ironbark	Quartz Gold Boom	Speculators'	Quartz Reefers'
Primary period	1860-70s	1870-80s	1890	1850s-1900
Size	Small	Small - Modest	Large	Small-Large
General Built Form/Features	One-two room hut Gable end roof	Square shaped house Two-four rooms Prefabricated/portable May incorporate later decorative detailing	Five/six/eight rooms Intricate decorative detailing Large Gardens	Colonial regency, Victorian-boom, and Italianate style Decorative embellishments Well-articulated Grander scale (cf. Ironbark) Architecturally designed
External Cladding/Walls	Weatherboard Handmade brick Local stone Mine slag Mud pise	Weatherboards	Weatherboard	Brick or stone
Level of alteration	High	High	Low-Medium	Low
Common additions	Decorative detailing Rear and side additions (gables and skillions) Front verandahs	Decorative detailing Rear addition	Rear addition	
Roof	Gable roof Corrugated metal (overlying timber shingles)	Hipped Corrugated metal	Hipped/Complex Corrugated metal	Hipped/Complex Corrugated metal
Verandah	Yes – usually later addition	Yes	Yes	Yes – often encircling
Chimney	External	Integrated	Integrated	Integrated

2.3 Survey

Trethowan's team of five heritage consultants individually surveyed the places identified in the Serial Listing Study 2020, expanding on the master spreadsheet provided by Council, on 22-23 February 2021. The survey of each property was carried out by foot at the pedestrian level from the street, with photographs taken of each from the public realm and observations collected on data sheets covering architectural features, intactness/alterations, street orientation, typology, materials and outbuildings. In some cases where the property was obscured by vegetation this was also noted, and additional information gleaned from publicly available aerial photography or real estate advertisements where possible.

The specific built features associated with each serial listing Heritage Overlay were used as a guide to prompt the observations of the survey team (summarised in Table 1). This ensured that

sufficient information was collected to both confirm the findings of the desktop survey and allow for each property to be later assigned to an Heritage Overlay. Particular attention was paid to the overall condition and integrity of the property where it was possible to determine this. This included detailing later additions (such as rear or side extensions or changes to roof form) and instances where original fabric had been removed or replaced (such as chimneys, windows, doors, cladding or decorative elements).

A small number of additional properties were also identified by the team during the survey that were subsequently added to the spreadsheet and assessed alongside the existing list of candidate sites.

As a result of the survey, the spreadsheet was updated with current photographs and place information, including level of integrity and intactness. Where possible, the places were provisionally sorted into one of the four serial listing categories based on their visual identification with the serial listing typologies during the survey and based on the understanding established in the first phase.

2.4 Additional Historical Research

The study has relied chiefly on basic research undertaken by the City of Greater Bendigo and Minerva, as well as additional work done by other consultants in wider Bendigo area that is applicable to the areas covered by the Stage 2 Study such as the Landmark 2019 gaps study. This information was provided as part of the master spreadsheet provided to Trethowan at the outset of the project. Some 20 properties required further background research to determine the construction date and confirm association with mining industry where this was not evident from either the initial information or visual inspection. This desktop research was undertaken by Trethowan with assistance from the City of Greater Bendigo and its Heritage Advisor and included local rate books, parish plans, municipal directories, newspapers and aerial photography. Additional records, including goldfields Libraries historical rate index online, will and probate documents at Public Record Office Victoria and certificates of land titles were also obtained and reviewed.

2.5 Assessment Against Criteria

The Burra Charter was rewritten by the heritage professional organisation, Australia ICOMOS, and has been revised most recently in 2013. This document established a 'values-based' assessment of heritage places, looking at their social, aesthetic, historic and scientific values.

Since that time, standard heritage criteria have been based on these values. This report adopts the most commonly used standard criteria for assessing these values, the *Heritage Council Criteria for the Assessment of Cultural Heritage Significance* (HERCON). These assessment criteria were adopted at the 1998 Conference on Heritage, and by the Heritage Council of Victoria in 2008. The Practice Note recommends the use of the HERCON criteria for carrying out heritage assessments.

In accordance with the Practice Note heritage places are identified as meeting either the threshold of 'Local Significance' or 'State Significance'. Places of Local Significance can include places that are important to a particular community or locality. Some of the places of local significance may also be important to the entire City of Greater Bendigo, but this is not essential to meet the Local Significance threshold.

The Practice Note advises that assessment of whether a place meets the local or State threshold should be determined in relation to model heritage criteria (also known as the HERCON Criteria) which is as follows:

Criterion A: Importance to the course or pattern of our cultural or natural history (historical significance)

Criterion B: Possession of uncommon, rare, or endangered aspects of our cultural or natural history (rarity).

Criterion C: Potential to yield information that will contribute to an understanding of our cultural or natural history (research potential).

Criterion D: Importance in demonstrating the principal characteristics of a class of cultural or natural places or environments (representativeness).

Criterion E: Importance in exhibiting particular aesthetic characteristics (aesthetic significance).

Criterion F: Importance in demonstrating a high degree of creative or technical achievement at a particular period (technical significance).

Criterion G: Strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons. This includes the significance of a place to Indigenous peoples as part of their continuing and developing cultural traditions (social significance).

Criterion H: Special association with the life or works of a person, or group of persons, of importance in our history (associative significance).

2.6 Applying a Threshold of Significance

Establishing a clear threshold of significance is crucial in determining the ‘minimum’ level at which a site or potential heritage place qualifies for inclusion within one of the serial Heritage Overlays identified in the Serial Listing Study.

2.6.1 What is a Threshold of Significance?

The Heritage Victoria standard brief for heritage studies (2010) notes that local significance can include places of significance to a town or locality. Whether this ‘threshold’ of local significance is achieved depends upon how relevant heritage criteria are applied and interpreted. In 2006, the Minister for Planning appointed an Advisory Committee to review heritage provisions in planning schemes. Part of the scope of the review was to consider the criteria and thresholds applied in the identification of local heritage places. The subsequent report provides some guidance in considering how thresholds should be applied, understanding that this forms an integral part of narrowing down what is to be managed from the wide range of potential heritage places.

On the basis that the concept of thresholds is an integral component of assessing heritage significance, the Advisory Committee concluded that the threshold for inclusion of a place in the Heritage Overlay in Planning Schemes should be a positive answer to the question ‘Is the place of sufficient import that its cultural values should be recognised in the planning scheme and taken into account in decision-making?’ (Advisory Committee Report 2007:xviii)

This requires the consideration of two key elements. Firstly, there should be something to be managed, evident in the fabric of the place. Secondly, there should be a criteria for assessment, and for this the HERCON Criteria have been accepted. It is also accepted that the threshold will vary according to the comparative analysis in the locality. The municipality’s Thematic History should also be considered when assessing whether a place contributes towards the significance of the municipality.

In its conclusion, the Advisory Committee (2007:2-40) noted that ‘the issue for planning purposes is simply whether a place is of sufficient heritage note in the local context to warrant planning controls being put in place to ensure that its heritage value is taken into account when development proposals are being considered.’ It concluded:

Essentially a ‘threshold’ is the level of cultural significance that a place must have before it can be recommended for inclusion in the planning scheme. The question to be answered is ‘Is the place of sufficient import that its cultural values should be recognised in the planning scheme and taken into account in decision-making?’ Thresholds are necessary to enable a smaller group of places with special architectural values, for example, to be selected out for listing from a group of perhaps hundreds of places with similar architectural values. Factors determining thresholds comprise another list again. They will include such things as intactness, age, rarity, and design or aesthetic quality. An important factor in the selection of places for listing will always be whether there is heritage fabric remaining in situ or other qualities pertaining to the place that are required to be managed. (2007:2-42)

Thresholds are to be used to ‘sieve’ places identified as of some significance by the HERCON criteria and determine those that should be listed under the Heritage Overlay (2007:2-44). Comparative analysis is thus crucial. This assessment is to be undertaken within a ‘locality’ delineated by geography and history of development and may be a smaller/different area to the municipal area (2007:2-44).

2.6.2 Comparative Analysis

Comparative analysis is thus an essential step to determining if a place or precinct meets the local (or State) threshold for heritage significance. The Practice Note advises that:

... some comparative analysis will be required to substantiate the significance of each place. The comparative analysis should draw on other similar places within the study area, including those that have previously been included in a heritage register or overlay.

Comparative analysis is considered particularly important in deciding if a place is of architectural significance or of rarity value in a given area but can be applied to most place types to determine their relative importance in a locality or wider area.

For the purposes of the Stage 2 Study the heritage places already identified in the existing *Miners’ Cottages* serial listing (HO999) was considered the minimal scope for comparative analysis to establish local significance. Comparisons were also sought with similar heritage places across the three new serial listings proposed in the Serial Listing Study. Other Heritage Overlays that provided useful comparators included *Calder Highway Precinct* (HO26) and *Ironbark Precinct* (HO27).

In this process, similar places and precincts (in terms of build-date, building type, and/or use/theme) already included in the City of Greater Bendigo Heritage Overlay were used as ‘benchmarks’ to provide a basis for comparison. These places were compared according to a range of criteria, including how well they represented a historical theme, their architectural design quality such as form and detailing, intactness (integrity) and rarity.

When the place or precinct under assessment was considered to be of equal or better quality than the contributory ‘benchmarks’ within the existing *Miners’ Cottages* Heritage Overlay (HO999) for example, it was judged to meet the threshold of local significance as a Contributory property and considered worthy of inclusion in the serial listing Heritage Overlay.

For example, the house at 25 Lazarus Street, West Bendigo (HO999) has retained its original gable end form with external chimney. Its materiality comprises rockwork, weatherboard and metal roofing. There are some additions of a later verandah with Edwardian detailing, but the original is strongly recognisable in the form and materiality of the property. The house at 19 Lazarus Street (HO999) has been rendered, painted and alterations made to the verandah and a rear addition and twentieth century fence added. However, the original miner’s cottage form is strongly evident including external chimneys, roof form, simple symmetry of the door and windows, and early

outbuildings. In another example of a Contributory graded property in HO26, the house at 91 Marong Road, Golden Square, is a later Victorian house with more complex roof form and some original detailing, window forms and verandah. Despite the removal of the chimney and minor alterations to the door, the property is strongly recognisable as a Victorian miners cottage. The house at 71 Marong Road, Golden Square (HO26) is a simpler hipped roof form, with weatherboard walls and metal sheet roof, brick chimneys and lacework verandah, and is a Victorian miners cottage of a similar aesthetic quality to many of the houses in the proposed serial listing.



Figure 5. 25 Lazarus Street, West Bendigo (Source: City of Greater Bendigo)



Figure 6. 19 Lazarus Street, West Bendigo (Source: Realestate.com)



Figure 7. 71 Marong Road, Golden Square. Contributory within HO26 Calder Highway, Ironbark Precinct (Source: Google Maps 2021.)



Figure 8. 91 Marong Road, Contributory within HO26. (Source: Google Maps 2021.)

2.6.3 Integrity

Given the importance of historical significance as a criteria for the serial listing, it was considered crucial that this history should continue to be demonstrated by the place in terms of some combination of fabric, form, or setting. An important benchmark was that to be Contributory to the serial listing, the house should be intelligible as a miner's cottage. Thus where some later alterations were added to the cottage, key elements of its original form such as roofs, chimneys, windows, verandahs (if applicable) should be clearly visible or easily restored. The visibility of original fabric such as stonework, brickwork, timber or metal roofing where applicable was also considered. A house might be missing one or two elements and still be recognisable as a Contributory miner's cottage, but a loss of many such elements could be considered fatal to integrity where this recognisability began to be lost.

Integrity varied across the study. Some houses had been extensively restored with varying degrees of sensitivity. Later additions such as verandahs or significant enlargements of the property made accurate categorisation difficult in some cases. As per above, the recognisability and intelligibility of the historic themes was considered critical. It was also noted that many miners

cottages were upgraded or decorated by their residents in the later nineteenth century or in the early twentieth century. These houses were still generally considered to retain their integrity where the original cottage was clearly evident. In some cases the additions or alterations to the property were considered to be seriously detracting or defacing of the property such that the property was no longer worthy of heritage protection. In such cases the additions or alterations might have a cumulative effect of overwhelming, dominating or completely obscuring the original form.

2.6.4 Condition

The condition of each property was noted in the survey, with a range of conditions noted. Some houses were in excellent condition. Average condition included some elements requiring repair. Poor condition included places requiring immediate attention or in some rare cases in states of dereliction. As a general rule, condition was not considered to rule out heritage significance of a place providing original fabric and overall form was still evident.

2.7 Gradings Within the Serial Listing

Once it was established that each of the sites satisfied one or more of the HERCON criteria at a local level (through comparative analysis), each property was also assigned a grading. In most cases, a Contributory grading was appropriate, however a handful of properties were considered Significant within the listing.

Current Greater Bendigo Grading System

Most previous heritage studies in the City have employed the old 'letter' grading system. This approach is inconsistent with the Practice Note that requires the establishment of a clear set of definitions for 'Significant', 'Contributory' and 'Non-contributory' properties.

Proposed Grading System

The 2019 Heritage Gap Analysis Study recommended clear and consistent standard definitions of Significant, Contributory and Non-contributory. Based on the findings of this gap study the following definitions have therefore been adopted and adapted for this study:

- **Significant:** a place that is of individual significance and satisfies at least one of the HERCON criteria at the local level. Significant places are often significant independent of their context, but may also contribute to the significance of a precinct
- **Contributory:** a place that contributes to the significance of a heritage precinct, but is not of individual significance on its own
- **Non-contributory:** a place within a precinct that does not contribute to the significance of the precinct. No places within the serial listing will be graded non-contributory, as the geographic scattering of the places doesn't allow for properties that do not contribute to be included in the listing

Properties deemed Contributory within the proposed serial listing are those considered to be representative of the type in terms of aesthetic form or history, but may have had minor alterations. Despite alterations, these properties retain their identity or intelligibility as former miner's cottages and clearly belong to one of the four typologies.

Properties were deemed Significant within the proposed serial listing if they fit within the broad historical period or category but are in addition individually outstanding or distinctive somehow (usually aesthetically) within the historical type or may have a particularly high integrity and/or intactness as a representative example.

Properties were deemed Non-contributory for a number of factors such as:

- Low integrity, where a place has a high degree of alterations from historical periods unrelated to the mining period to the extent that it is no longer intelligible as a miner's cottage
- The property was not associated with any of the historical typologies, for example was built outside of the period of significance or not associated in any way with the relevant historical themes
- The property has been moved from another location
- The property no longer exists or has been demolished

2.8 Statements of Significance

For each serial listing found to meet the threshold of local significance for at least one criterion, a Statement of Significance was prepared, summarising the most important facts and the significance of the place/precinct. This includes formulating statements of significance for the three new serial listings, as well as assessing the statement for the existing *Miners' Cottage* serial listing.

Each statement was prepared in accordance with The Burra Charter; using the HERCON criteria; and applying the thresholds of local or State significance. Each assessment is summarised in the format recommended by the Practice Note, namely:

What is significant?

This section should be brief, usually no more than one paragraph or a series of dot points. There should be no doubt about the elements of the place that are under discussion. The paragraph should identify features or elements that are significant about the place, for example, house, outbuildings, garden, plantings, ruins, archaeological sites, interiors as a guide to future decision makers. Mention could also be made of elements that are not significant.

How is it significant?

A sentence should be included to the effect that the place is important because of its historical significance, its rarity, its research potential, its representativeness, its aesthetic significance, its technical significance and/or its associative significance. These descriptors are shown in brackets at the end of the heritage criteria listed above. The sentence should indicate the threshold for which the place is considered important.

Why is it significant?

This should elaborate on the criteria that makes the place significant. A separate point or paragraph should be used for each criterion satisfied. The relevant criterion should be inserted in brackets after each point or paragraph. Each point or paragraph may include the threshold for which the place is considered important.

2.8.1 Updating the *Miners' Cottages* Serial Listing (HO999)

Changes to the existing HO999 serial listing are restricted to the addition of new properties identified in this study. Where relevant, suggested changes to the existing citation have been highlighted or suggested for future work.

2.8.2 Statutory Recommendations

The typical statutory recommendations for places and precincts assessed to be of local significance are made in accordance with relevant policies and guidelines set out in the Practice Note.

The Practice Note describes additional controls that can be ticked in the Schedule to the Heritage Overlay for a place or precinct, including:

- External Paint Controls – to control changes to paint colours; particularly important if evidence of an early colour scheme survives; note that a planning permit is always required to paint a previously unpainted surface (e.g., face brick, render, stone, concrete, timber shingles).
- Internal Alteration Controls – to be used sparingly and on a selective basis for special interiors of high significance.
- Tree Controls – to be applied only where a tree (or trees) has been assessed as having heritage value, not just amenity value.
- Fences and Outbuildings which are not exempt from advertising planning permit applications – demolition applications for early fences and/or outbuildings that

contribute to the significance of a place must be publicly advertised if this box is ticked, and the accelerated VicSmart permit process cannot be used; note that a planning permit is required to alter, demolish or replace a fence or outbuilding even if this box is not chosen, however public notice of the permit application is generally not required.

- Included on the Victorian Heritage Register – can only be entered by Heritage Victoria.
- Prohibited uses may be permitted – this allows additional uses not normally permitted in a given zone, subject to a planning permit; it is most frequently used to give redundant buildings a wider range of future use options to ensure their long-term survival, e.g., purpose-built shops in residential areas.
- Incorporated Plan has been adopted for the place/precinct – an incorporated plan is sometimes prepared to introduce permit exemptions for a precinct, or provide specific guidance in managing a complex site.
- Aboriginal heritage place – note that Aboriginal heritage significance was not assessed as part of this Study.

When making statutory recommendations, recommendations for these additional controls were made where appropriate. In cases where Tree Controls or Fence and Outbuilding exemptions are recommended, the specific elements to be protected have generally been indicated for inclusion in the Schedule to the Heritage Overlay to provide clear guidance for planners and owners. For example: Tree Controls: Yes – *English Oak at No.X*.

2.8.3 HERMES Entry

The Practice Note specifies that:

All statements of significance should be securely stored in the HERMES heritage database.

Where a planning scheme amendment has resulted in the addition of, or amendments to, places in the Heritage Overlay, the strategic justification (that is, heritage study documentation and statements of significance) should be entered into the department's HERMES heritage database.

This will be done once a planning scheme amendment has been gazetted. Once the places have been added to HERMES, the records of those places added to the Greater Bendigo Heritage Overlay will be visible on the Victorian Heritage Database.

Places found to not meet the threshold of local significance should be entered into the HERMES database to note that they have been 'Researched but NOT recommended'. These records are not published for the general public to see but are accessible to Council staff.

3 Key Findings

3.1 Local Significance

3.1.1 Proposed Serial Listing Heritage Overlays

All three of the new serial listings proposed in *'The Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing'* are considered to meet the threshold for local significance when assessed against the HERCON criteria, and are thus determined to be worthy of protection in the Heritage Overlay. These Heritage Overlays are:

- Quartz Gold Boom Miners' Houses
- Workers and Mine Speculators' Houses
- Quartz Reefers' Houses

3.1.2 Extending Existing Serial Listing Heritage Overlay

The proposal to amend the existing serial listing *HO999: Miners' Cottages - Bendigo, Ironbark, Long Gully, North Bendigo and West Bendigo* ('Ironbark Miners' Cottages') to include additional early gable roofed miners' cottages is also supported.

3.1.3 Contributory and Significant Graded Properties

A total of 158 individual places out of the 229 assessed from the original survey list are considered to meet the threshold for local significance and therefore worthy of inclusion into one of the four Heritage Overlays. These 158 individual places have been graded as either Contributory or Significant.

Contributory Properties

A total of 156 properties have been graded as Contributory and are assigned to one of the four serial listings as follows:

- **Ironbark Miners' Cottages:** 58
- **Quartz Gold Boom Miners' Houses:** 42
- **Workers and Mine Speculators' Houses:** 50
- **Quartz Reefers' Houses:** 6

Each of these Contributory places have been determined to satisfy the threshold for inclusion in a Heritage Overlay when assessed against the HERCON criteria. They also meet the requirement for high integrity in relation to their original form, fabric or setting, as well as being in sufficiently good condition that integrity was still evident. The methodology for this has been outlined in Sections 2.5 and 2.6 above.

Significant Properties

A total of two individual properties have been graded as Significant and are assigned to two of the four serial listings as follows:

- **Ironbark Miners' Cottages:** 1 Daly Street, Long Gully
- **Quartz Gold Boom Miners' Houses:** n/a
- **Workers and Mine Speculators' Houses:** n/a
- **Quartz Reefers' Houses:** 83 Adam Street, Quarry Hill

Both significant places have been determined to satisfy the threshold for inclusion in a Heritage Overlay when assessed against the HERCON criteria and represent outstanding or especially unique examples of their typology. It is considered that these properties are comparable to other individually significant properties in terms of exceeding a threshold for high integrity in relation to

their original form, fabric or setting, as well as being in sufficiently good condition that integrity was still evident.

Outbuildings

A small number of potentially contributory outbuildings were identified during the survey. These appeared to be a mix of attached or detached nineteenth century outbuildings associated with the history of the place, and could encompass historical buildings such as outhouses, detached former kitchens or laundries. Due to the location of outbuildings to the rear or within properties, close inspection and assessment was not possible during the general survey, and it is possible that other original outbuildings may have been obscured from view. A general statement has been added to the Statement of Significance noting that original outbuildings from the nineteenth century where they exist, may contribute to the historical significance of the place. These can be assessed by Council on a case by case basis as the need arises. Potential outbuildings of interest were noted during the survey at the following properties:

- 89 Upper California Gully Road – gabled timber outbuilding
- 97 Upper California Gully Road – possible detached former kitchen with chimney
- 12 Gundry Street, Long Gully – possible outbuildings may be attached
- 180 King Street – Possibly detached former kitchen with chimney

3.2 Non-contributory Graded Properties

A total of 51 individual places from the original survey list of 229 have been graded as Non-contributory. These places were rejected because they were deemed not to meet the threshold of significance. This was most often due to a lack of integrity (substantive additions or changes that have resulted in a loss of original fabric), or to be lower in representative quality when compared to other comparable examples.



Figure 9. 265 King Street, Bendigo. Example of a non-contributory property illustrating changes to original fabric that have impacted on integrity (Source: Trethowan Architecture)



Figure 10. 12 Wade Street, Golden Square. Non-contributory due to substantial changes to original fabric and later additions (Source: Trethowan Architecture)

3.3 Other Properties that Fail to Qualify

A total of 20 places originally identified in the Stage 1 Survey (2017/18) do not qualify for a variety of reasons as listed below other than not meeting the threshold for local significance. A further two places were identified during the site survey undertaken by Trethowan but the historical link to the mining industry had not been established.

3.3.1 Demolished Dwellings

A total of three dwellings have been demolished since the completion of the Stage 1 Survey:

- 6 Burrowes Street, Golden Square
- 55 Cunneen Street, Long Gully
- 72 Sparrowhawk Road, West Bendigo

3.3.2 In Existing Heritage Overlay

A total of nine dwellings were determined to already fall under the protection of an existing Heritage Overlay:

- 33 Belle Vue Road, Golden Square (individual Heritage Overlay that is yet to be formally adopted in Bendigo Planning Scheme)
- 44 Belle Vue Road, Golden Square (HO431)
- 58 Belle Vue Road, Golden Square (HO432)
- 52 Breen Street, Golden Square (HO585)
- 14 Eaglehawk Road, Ironbark (HO1)
- 235 Eaglehawk Road, Long Gully (HO540)
- 237 Eaglehawk Road, Long Gully (HO541)
- 257 Eaglehawk Road, Long Gully (HO542)
- 35 Havilah Road, Long Gully (HO841/HO999)

3.3.3 Require Further Historical Research

A total of two places were identified during the site survey conducted by Trethowan and are considered to potentially meet the threshold for inclusion in a Heritage Overlay. However, further historical research is required to determine whether these places are directly associated with mining:

- 5 Pascoe Street, Long Gully
- 28 Wilson Street, Long Gully

3.3.4 No Connection to Gold Mining

Historical investigation reveals no immediate connection to the gold mining industry for the following two dwellings:

- 51 Belle Vue Road, Golden Square
- 3 William Street, Long Gully

3.3.5 Moved to Current Site from Another Location

Historical investigation suggests that the following four dwellings have likely been moved to their current sites from another location:

- 48 Belle Vue Road, Golden Square
- 56 Belle Vue Road, Golden Square
- 2 Cunneen Street, Long Gully
- 3a Yaloke Street, Golden Square

3.3.6 Unable to be Surveyed

A total of two dwellings identified by the Stage 1 Survey were not publicly accessible to enable a proper assessment during the survey:

- 32 MacCullagh Street, Golden Gully
- 42 Old High Street, Golden Square

3.4 Statutory Controls

3.4.1 External Paint Controls / Internal Alterations / Victorian Heritage Register / Prohibited Uses / Aboriginal Heritage Place / Outbuildings and Fences

No additional controls are recommended for the four serial listing Heritage Overlays in relation to the following:

- External Paint Controls
- Internal Alterations
- Victorian Heritage Register
- Prohibited Uses
- Aboriginal Heritage Place
- Outbuildings and Fences

3.4.2 Tree Controls

Tree controls are recommended for selected mature exotic trees that enhance the setting of the places, as these plantings are typical of nineteenth century garden landscapes and add to the heritage character of the place. An arborist report is recommended to identify the species and age of the trees. The trees of interest are identified in the Schedule to the Heritage Overlay. It is noted that HO999 has existing tree controls.

4 Recommendations

4.1 Introduction

This section provides the key recommendations of the Stage 2 Study. These are:

1. Adoption of the Stage 2 Study by the City of Greater Bendigo
2. Implementation of the recommendations of the Stage 2 Study by the City of Greater Bendigo by preparing a planning scheme amendment to the Greater Bendigo Planning Scheme that will:
 - Amend the existing serial listing Heritage Overlay for HO999 – Miners' Cottages to add new Contributory graded properties to the listing.
 - Adopt the three new serial listing Heritage Overlays.
 - Add the individual places assessed as being of local significance identified within the citations for each serial listing Heritage Overlay.

4.2 Future work

A future study should review HO999 to ascertain whether there are any properties in the original Miners' Cottage serial listing that would be more accurately classified and better protected within one of the new serial listings.

The Statement of Significance for HO999 could also be rewritten to the current standard of What, Why and How the listing is significant with a more concise statement of What is Significant. An example of a more concise statement outlining What is Significant for HO999 is provided in Appendix B.

4.3 Miners' Cottages - Bendigo, Ironbark, Long Gully, North Bendigo and West Bendigo (Ironbark Miners' Cottages). Revised HO999

Prepared by: Trethowan Architecture

Address

15 Adelaide Gully Rd, Golden Gully; 2, 83 Allingham St, Golden Square, 55 Arnold St, Bendigo, 382 Barnard St, Ironbark; 68, 78 Bennett St, Long Gully; 54 Breen St, Quarry Hill; 6 Broom St, Bendigo; 2 Burn St, Golden Square; 10 Cunneen St, Long Gully; 1 Daly St, Long Gully; 15 Gibson St, North Bendigo; 19 Grant St, Long Gully; 12 Gundry St, Long Gully; 614, 615 Hargreaves St, Golden Square; 5 Havilah Rd, Long Gully; 27 Holdsworth Rd, Long Gully; 71 Jackson St, Long Gully; 19 Joseph St, Bendigo; 140, 180, 196, 255, 261, 269, 266 King St, Bendigo; 12A Kirby St, Bendigo; 10, 23, 26, 35A, 36 Macdougall Rd, Golden Square; 48, 136, 193 Mackenzie St West, Golden Square; 63 Nettle St, Ironbark; 1A, 3 Pascoe St, Long Gully; 11 Philpot St, Long Gully; 3 Pitt St, Bendigo; 266 Queen St, Bendigo; 8 Rose St, Golden Square; 4 Sheridan St, Long Gully; 49, 76 Specimen Hill Rd, Golden Square; 15 Stone St, Long Gully; 15, 141 Thistle St, Golden Square; 89, 90, 97, 99 Upper California Gully Rd, Long Gully; 9, 31 Wade Ln, Golden Square; 2 William St, Long Gully; 270 Woodward Rd, Golden Square; 22 Davey Close, Flora Hill.

Name: Miners' Cottages - Bendigo, Ironbark, Long Gully, North Bendigo and West Bendigo	Survey Date: March 2021
Place Type: Residential	Architects: Unknown
Grading: Significant (Serial Listing)	Builders: Unknown
Extent of Overlay: To the property boundaries	Construction Range: 1860-1900



4.3.1 Historical Context

The following historical background is extracted and adapted from *Ironbark Heritage Study* (2010) Volume 1.

The Bendigo Goldfields

The majority of the Bendigo goldfields evolved geologically in the 38 north-south anticline lines of reef that lay from Bendigo East to Kangaroo Flat. Gullies and dry creeks cut across the ridges in a west to easterly direction, flowing into the Bendigo Creek, which flows across the gravel plains of Epsom, a former shallow sea in the north, and thence into the Campaspe River, a tributary of the Murray River. The area was covered by dense Box-Ironbark forests and woodlands and was the traditional lands of the indigenous Dja Dja Wurrung people who had managed the lands according to traditional knowledge and culture for many thousands of years. Following the annexation of the land by the British Crown, the Crown granted a pastoral lease for grazing stock to pastoralists Stewart and Gibson in 1848.¹ Following the discovery of gold in the area in 1851, thousands of gold diggers rushed to the area from all corners of the world. The Government managed access to land by these new kinds of colonists through the issue of mining leases. Mining leases, pastoral leases and Indigenous native title rights are now acknowledged to co-exist over Crown Land, but at the time the Indigenous Australians were pushed to the margins of society and their rights were not recognised.

The Bendigo gold fields, commenced in 1851, continued over the next 153 years through times of boom, decline, revival and stagnation. The last underground historic mine closed in 1954 with continued production locally. The Bendigo Goldfields is Australia's second largest in terms of historical production after Western Australia's Golden Mile (Boulder, Kalgoorlie).² It produced the largest amount of gold of any field in Eastern Australia and retains the largest evidence of its mining past within the inner city area. The history of mining shaped and created Bendigo. It left a chaotic industrial landscape which was in a state of perpetual flux with seemingly random, scattered, small and often very isolated settlements of people across a wide area.³

In 1854 the character of the city of Bendigo (Sandhurst) changed from a collection of irregular diggings on Crown Land to a central town when the area that is now central Bendigo was surveyed by government surveyor, Richard Larritt. A government camp was established and the geometric grid layout of the town was laid out, streets surveyed and land auctioned for sale under Torrens Title. The primary factor governing settlement in the broader area, however, was mining. It was to the outer gullies and creeks within the watershed of Bendigo Creek where the alluvial miners first worked.⁴ By mid 1852 more than 4,000 diggers were arriving each week, until over 40,000 miners had arrived in the space of a few years. Tent settlements were established in 1851-2 by 'diggers' intent on finding the available alluvial gold.⁵ By 1861 the entire Sandhurst mining district had 41,000 people spread through a score of small mining settlements. But the majority of the goldfields remained temporary and transitional in nature with haphazard settlements and roads. Other times, lack of water drove the miners on, leaving behind Crown Land that had been dug up, trees cleared, dry gullies clogged up and a wasteland created.⁶ It left a legacy of large tracts of Crown Land former mine sites that encircle the city and penetrate deep within it. It is these Crown Lands and National parks in which the Dja Dja Wurrung native title interests are now recognized.

By the end of the 1850s miners were experimenting with steam powered mills as well as crushers and open cut mining. More extensively than elsewhere, Bendigo miners used puddling machines. By mid 1854 there were 1,500 machines. Attention was also turning to the mining of quartz reefs and steam powered machinery for mining was being set up as early as 1855. Supporting the miners were small foundries and accompanying this phase of mining came the building of more substantial buildings. Towards the end of the 1860s the dominance of the alluvial miner was drawing to a close and by 1868 there were 4,000 alluvial miners and 3,000 quartz reef miners in Bendigo. The success of the deep shafts had grown on Hustlers Reef and Victoria Reef with associated small crushing works. The reef miners turned to steam driven crushing machines, larger mining companies were employing bigger work forces.

In the early 1860s Bendigo's mining boom was marked by the formation of hundreds of companies. As technology and mine administration improved, so did the confidence of investors. Larger steam

¹ Ravenswood Homestead, Heritage Victoria, <http://vhd.heritage.vic.gov.au/places/heritage/967>

² Bendigo Mining for a summary of the history of mining to the present see website for Bendigo Mining http://www.bmnl.com.au/safety_environment/community_relations/gold_mining/bendigo_goldfield_history.htm

³ Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History 1993

⁴ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

⁵ Ballinger, Robyn, *Ironbark Hill Precinct Report*, City of Greater Bendigo, October 2005

⁶ Ibid

plants and winding engines were installed so the mines could be worked at greater depth and also control ground water inflow. Another mining boom was in full swing in 1871 and boosted the establishment of foundries and engineering works. In a two-year period, over one thousand new mining companies were floated with thousands of small mining leases. A frenzy of buying and selling shares occurred at the Beehive Mining Exchange. The boom soon burst, but some mines continued to operate by digging deeper into the reefs. In the early 1870s companies built up a paid work force and mining became the staple form of male employment in Bendigo. With capitalized works, the floating population of diggers diminished. Company mining altered the social structure of Bendigo. It established a new class of investors. Mining had created distinctly working class areas in town that housed the waged miners, which was separated from the wealthy socially as well as geographically.⁷

The boom of the late 1860s and early 1870s was over by 1873 but until the early 1890s mining remained central to the Bendigo economy. The town was untidy, disordered, brash and with conflicting land uses right in the heart of the city.⁸ The early ethnic mining groups were overlaid by new social divisions of wealth and power.⁹ A wider range of housing appeared during the 1870-80s. On some hills an elite suburbia emerged. The pattern of segregation was often a product of topography, between high and low land. The elite found on hill tops and the cottages in low lying gullies. Public streets were planted with trees. There were a few well known mine investors and owners, who built alongside their mines such as Lazarus and Lansell.

At the beginning of the 20th century mines were still a major employer in Bendigo but the self-image of Bendigo was changing to one of a garden city with a fine climate.¹⁰ By the 1890s architects who had reaped lucrative public contracts in the 1870s and 1880s turned to working for private clients bringing their own international style to Bendigo.

Mining declined from the early years of the twentieth century. In 1917 the majority of surviving mines were amalgamated with operations ceasing in 1923. Gold mining revived in 1930s when as many as 1,500 men worked in the alluvial mining and cyaniding. The old tailings and battery sands were re-worked by about thirty cyanide plants, employing 300 men.¹¹ Bendigo Mines Ltd began an extensive mining program on the Nell Gwynne, Napoleon and Carshalton lines of reef. Mines such as Royal George, Moonta and Central Nell Gwynne operated throughout this period but with little success. In contrast, the Central Deborah Mine started production in 1939 and continued until 1954.¹²

Miners Residence Areas

All miners who built their homes on mining land were holders of a Miner's Right. This right entitled them to take out a lease for a Residence Area on mining land and build a home, often originally on quarter acre blocks. The Miner's Right was an exclusive right that authorized certain rights and privileges and entitlements of the holder in the 'waste land' over which the British Crown claimed ownership. The Miner's Right only applied to auriferous land or 'waste land' that had been reserved by the British Crown as public land for its potential to yield gold. The holder of a Miner's Right did not need to be an applicant or holder of a lease for a mining tenement, that is, be an owner of a license for gold mining production. The Miner's Right was unique in the world because it entrenched legal rights for working miners to build a house on auriferous land. The miner's right of the Californian goldfields was not a legal document such as this.

All miners' houses were built by holders of a Miner's Right on auriferous land, that is land that was reserved as goldfields' commons by the colonial government to protect the economic resources of the Crown. Gold belonged to the Crown. The goldfields' commons introduced an ancient land management system from England. Bendigo had the largest goldfields commons in Victoria, covering 318.569 square kilometres that was potentially available for housing.

There were other types of commons such as town commons and farmer's commons among others. The goldfields' commons were specifically located on auriferous land and were controlled by the

⁷ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

⁸ Ibid p 30

⁹ Ibid p. 34

¹⁰ Ibid p.48

¹¹ Cusack, F. *Bendigo a history*, revised edition, 2002, Lerk & McClure, 2002, p.244

¹² Eaglehawk and Bendigo Heritage Study Significant Mining Areas and Sites Repo, Vol 3 pp.123-235

Courts of Mines and Warden's Courts (and after 1898 by the Department of Mines), that sat in each of the six or eight declared mining district jurisdictions. The Mine Wardens and Mining Board members were elected by the miners from the Bendigo Mining district. They judicated over the series of Mines and Residence Area Acts according to local circumstances and conditions.

These auriferous lands served to accommodate thousands of newly arrived migrant miners and their families during the 1870s quartz boom outside township surveyed areas.

The management of the Mines and Residence Area Acts did not extend to investment into public health, sanitation, rehabilitation of contaminated mines sites or road services. The mining areas were outside the jurisdiction of local municipal and borough councils. Closure of the gold mines meant the land was abandoned and became waste lands. Many miners relocated their houses elsewhere.

The opening up of licenses on auriferous lands through the 1890s Mines Act allowed other industries to operate on Crown Land, near an available work force that was housed under the Miner's Right license. The Warden's Courts encouraged the purchase and conversion of Residence Areas to freehold title since the 1856 Mines Act, but particularly after the Mines Act 1892. Disposal of land for private sale was sporadic, unregulated and haphazard. It meant irregular shaped freehold titles were located in the midst of mining areas, often for over a century. The lots remained un-serviced and without formal roads until gradually incremental infill development and land sales transformed some areas during the 20th and 21st centuries.

4.3.2 History of 'Ironbark' Miners' Cottages

Within the inner city, Ironbark and Long Gully areas contain some of the highest proportion of former mines sites than any other inner suburban area. The five residential areas recreated by the lines of deep quartz mines comprises the following: Lazarus Street and Moonta area, Happy Valley Road settlement, the commercial centre of Eaglehawk Road, Ironbark Hill and Roeder Street, Bannerman Street and Paddy's Gully or Ironbark Ranges. Small class miners' cottages located on former Miners Residence Areas, were built beside the mines, located along the upper contours of the hills overlooking the polluted creeks, sludge dams and pyrite works. Many of the original Crown Land grants and miners cottages have survived. These large parcels of land throughout the area show evidence of the way in which the miners lived, the rambling food production gardens and large mature trees that date to the early gold rush days.

The development of new forms of land uses and buildings in Long Gully and Ironbark were influenced by the rapid migration of large communities of Cornish miners and their families and to a lesser extent, communities of German and Chinese miners within a very short period of time from the late 1850s to late 1870s. The cheap rents afforded by the Miners Residency Areas system of home ownership, the large families of the miners and availability of work in nearby company mines until the 1950s encouraged intergenerational stability and expansion into the 20th century.

Although the simple gable roofed miners' cottages are readily associated with the Ironbark area, they are found across the city in the various mining areas. In general terms Ironbark cottages are:

- Associated with settlement under the Miner's Rights 1855 and the Mines Act 1856
- Representative of the earliest phase of settlement in the Bendigo goldfields
- Closely aligned with the various phases of Bendigo's gold mining industry from the 1860s

4.3.3 Description and Integrity

All Miners' Cottages

Despite the variety of built form associated with miners' cottages, there are a number of similarities across the miners' cottages constructed in Bendigo through the nineteenth century. They are all located within former mining settlements and communities, tied to the geology of the place and former gold mines, associated with peak periods of activity of these mining areas. Very few of the houses are perfectly intact to the period of original construction due to changes in the Mines Acts, mining cycles and the freedom to make improvements over the long period of time. Miners cottages are often surrounded by unrelated buildings and do not always form cohesive visual precincts. The

original quarter acre blocks of the Miner's Residency areas have often been subdivided and sometimes cottages were relocated. However they are recognisably of common typological form and materiality, relating to the specific periods of historical association.

'Ironbark' Miners Cottages

So-called 'Ironbark' miners' cottages (*Evolution of Housing* 2020) generally began as small one or two bedroom huts with simple gable end roof forms. These cottages were often of weatherboard with few or simple decorative features, with common variations including mud brick or stone walling made by German or Cornish miners respectively. Chimneys were often external. Common alterations or additions include rear gable additions, front verandahs, rear skillions or later decorative detailing. Other building materials could include handmade red brick, local stone, mine slag or mud pisè bricks.

Representative examples within the listing include the weatherboard houses such as 2 and 83 Allingham Street, Golden Square. Both demonstrate a side gable roof with ridgeline to the street, simple symmetrical massing and façade, with external brick chimneys. The cottage at 2 Allingham Street has an interwar verandah added, and the chimney at No.83 has been rebuilt, however both present typical features of the modest 'Ironbark' typology. No.83 is notable also for its lack of alignment to the street. The house at 99 Upper California Road, Long Gully demonstrates the typical modest scale, symmetry, and side-gable roofline of the type, but is composed of stone and brick and timber, with stone base. It has been overpainted, had the chimney removed and a new verandah added, with an open carport to the side. It is well set back from the street. The three demonstrate well key features of the type, as well as the average scale of addition or alteration.



Figure 9. 2 Allingham Street, Golden Square.
Source: Trethowan Architecture.



Figure 10. 83 Allingham Street, Golden Square.
Source: Trethowan Architecture.



Figure 11. 99 Upper California Road, Long Gully.
Source: Trethowan Architecture.

4.3.4 Comparative Analysis

The Victorian vernacular miners' cottages to be added to the serial listing can be compared firstly with other cottages of the type in the existing HO999. Other Heritage Overlays that provided useful comparators to the serial listing overall included *Calder Highway Precinct* (HO26) and *Ironbark Precinct* (HO27).



Figure 12. 25 Lazarus Street, West Bendigo
(Source: City of Greater Bendigo)



Figure 13. 19 Lazarus Street, West Bendigo
(Source: Realestate.com)

The house at 25 Lazarus Street, West Bendigo (HO999) has retained its original gable end form with external chimney. Its materiality comprises rockwork, weatherboard and metal roofing. There are some additions of a later verandah with Edwardian detailing, but the original is strongly recognisable in the form and materiality of the property. The house at 19 Lazarus Street (HO999) has been rendered, painted and alterations made to the verandah and a rear addition and twentieth century fence added. However, the original miner's cottage form is strongly evident including external chimneys, roof form, simple symmetry of the door and windows, and early outbuildings. The houses within HO999 demonstrate a similar typology with mix of external chimneys, brick, stone, rockwork or weatherboard with symmetrical facades, modest form, side gables with sheet roofing and ridgelines parallel to the street. They also compare favourable in terms of degree and range of alteration and additions.

As a grouping, the miners cottages can be compared to those in around Victorian era precincts such as those at Golden Square (HO24), Victoria Hill Mining & Residential Area (HO26) Calder Highway, and Bannerman Street (HO841). The house at 26 Bannerman Street for example is graded contributory within HO999 and is surrounded by HO841. It demonstrates comparable modest form with side gable, ridge to street, external chimney, with a later more elaborate Victorian style verandah and fence added. The house at 29 Bannerman is similarly graded contributory within HO999, with typical weatherboard construction, simple side gable roof, external brick chimney and addition of a verandah, enhanced by the alignment against the later street. The house at 16 Hill Street, contributory within HO999, demonstrates characteristics of the later development of these early miners cottages, with a late Victorian/early Edwardian gabled addition to the front, illustrating the inclusion of some later housing forms within the existing Serial Listing.



Figure 14. 26 Bannerman Street, Bendigo.
Source: Google Maps.



Figure 15. 29 Bannerman Street, Bendigo. Source:
Google Maps.



Figure 16. 16 Hill Street, Bendigo. Bendigo.
Source: Google Maps.

4.3.5 Assessment Against Criteria

Criteria referred to in *Planning Practice Note 1: Applying the Heritage Overlay*, Department of Environment, Land, Water and Planning, revised August 2018, modified for the local context. The existing criteria for assessment for HO999 has been adopted and has been followed.

Criterion A: Importance to the course or pattern of the City of Greater Bendigo's cultural or natural history (historical significance)

The miners' cottages of the Long Gully, Victoria Hill and Ironbark Hill and other former mining areas such as New Chum and Golden Gully are historically significant as the homes of the working class miners who serviced some of the wealthiest and deep quartz mines of Bendigo and Eastern Australia as both waged miners and Tribute miners.

The miners' cottages are representative of the diverse range of miners' cottages including examples of the typical Cornish vernacular long house built by early emigrant Cornish, who formed a significant ethnic group of miners in the area. They demonstrate the way in which design, fabric and decorative embellishments reflected the evolving status of the owners as immigrant miners.

The miners' cottages provide an important historic insight into the domestic lives and typical homes of Cornish and German miners, among other migrants, some of whom worked in the related trades as blacksmiths, engine drivers, carriers and mine engineers.

Criterion B: Possession of uncommon, rare, or endangered aspects of the City of Greater Bendigo's cultural or natural history (rarity).

The miners' cottages of the Long Gully, Victoria Hill, Ironbark Hill, Golden Gully and other former mining areas are associated with one of the unique features of the Victorian goldfields-the miners' Residence Area, which allowed the development of unregulated settlement on Crown land amongst mining sites. Many cottages are still intact and provide a rare record of the home occupiers such as in the Ironbark Hill area during the period, 1866-1882, listing their occupations as miners or associated jobs such as carter, engine driver, blacksmith and mine manager.

The miners' cottages and their large gardens in Moonta area are self-made community housing that resulted from adverse possession of Crown land at the time of the 1890s depression. In Victoria the cottages belong to a group of increasingly rare structures that show a combined use of timber weatherboards and pise, rammed earth construction techniques, the mud coming from the nearby creek. Groups of mud adobe and pise rammed earth dwellings associated with the German community were once a common feature on the Bendigo goldfields and in the former Long Gully Creek area but are now becoming increasingly rare.

The miners' cottages form an important visual element in the cultural landscape of Ironbark and Long Gully. They clearly tell the story of the early alluvial, puddling and deep quartz company mining and workings of the tailings in Bendigo from the 1850s through to early 1950s.

Criterion C: Potential to yield information that will contribute to an understanding of the City of Greater Bendigo's cultural or natural history (research potential).

The miners' cottages in the Long Gully, Victoria Hill, Ironbark Hill, Golden Gully and other former mining areas are associated with extensive archival materials. These include the Quarterly Reports of the Mining Surveyors and Registrars, 1863-91; detailed social demographic information since 1861 particularly in Bendigo and Ballarat goldfields; scholarly research and publications as well as contemporary journals and diaries.

Criterion D: Importance in demonstrating the principal characteristics of a class of cultural or natural places or environments (representativeness).

The miners' cottages of the Long Gully, Victoria Hill, Ironbark Hill, Golden Gully and other and other former mining areas are an excellent representative example of the early gabled ended miner's cottage type, particularly associated with German and Cornish miners of Long Gully and Ironbark Hill.

The miners' cottages at numbers 19, 21, 25 and 24 Lazarus Street are excellent representative examples of miner's cottages particularly associated with the influence of the German community, who worked nearby on the gold mining works along Long Gully, Derwent and Sparrowhawk Gullies, where they built most of their building from locally made mud bricks and pise. All miners' cottages in the Moonta precinct are significant features and are an excellent architectural record of some of the earliest types and designs of miners' cottage. The two former weatherboard and timber cottages at 7 and 9 Harvey Street are significant as highly intact mid 19th century miners' cottages erected on Miners Residency Areas, which were retained on Crown land until the 21st century.

Criterion E: Importance in exhibiting particular aesthetic characteristics (aesthetic significance).

The miners' cottages display a level of intactness and authenticity in terms of their architectural character, form and scale that demonstrates the principle characteristics of cottages, built by unemployed miners and sustenance workers, during the depression years of 1890s and 1930s.

The miners' cottages of the Long Gully, Victoria Hill, Ironbark Hill, Golden Gully and other former mining areas have aesthetic significance as they illustrate the rich diversity of a working class miners' cottages, a key feature of the Victorian 19th century goldfields. The size, shape and design of miners' cottages provide a historical and architectural record of a vernacular class of buildings.

Criterion F: Importance in demonstrating a high degree of creative or technical achievement at a particular period (technical significance).

N/A

Criterion G: Strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons. This includes the significance of a place to Indigenous peoples as part of their continuing and developing cultural traditions (social significance).

N/A

Criterion H: Special association with the life or works of a person, or group of persons, of importance in the City of Greater Bendigo's history (associative significance).

N/A

4.3.6 Statement of Significance

What is Significant?

The Australian goldrushes were part of a series of rushes which occurred around the periphery of the Pacific and Indian Ocean from the mid-nineteenth century that transformed the international banking system and bankrolled colonial expansion, world trade, shipping and manufacturing. The central goldfields of Victoria became a key colony of the British Empire because of the wealth derived from gold. The pattern of globalization and immigration marked across the colonial landscape of Victoria is most evident by the distribution of the small domestic miners' cottages. The miner's cottage belongs to a vernacular typology that despite regional differences can be linked to specific gold mining reefs, quartz and alluvial goldfields as well as different migrant groups, who incorporated their traditional building technologies in the construction of their homes.

The evolution of the central Victorian goldfields is inextricably linked to the way in which Britain had annexed territory in Australia as terra nullius, the subsequent dispossession of the Indigenous population and the manner in which the colonial government managed access to Crown Land through the issue of a range of leases. It heralded a new grammar of law, mapping of spaces by which land property rights were expressed, gold licensing system was implemented and the 'Miners Rights' introduced. The rights afforded to miners under the 'Miners Rights' and successive related Acts were the single most influential government measure that changed the face of the central Victorian landscape. The provision of cheap public land on which to build created levels of working class home ownership in mining areas that was unmatched elsewhere in the world. It led to the construction of thousands of miners cottages.

These factors in conjunction with the simultaneous juxtaposition of the gold rush coming at the time of immense social upheaval in Europe led to an unprecedented long distance migration of family groups. The most defining characteristic element of the central Victorian goldfields is the highly domesticated nature of the mining cultural landscape. The miner's cottage became a major feature of the built landscape of Central Victoria. The greatest agent for determining the incidence of these miners' cottages is geology and landscape.

Each gold rush area led to different responses to the establishment of shelter and construction of miner's cottages.

The miners' cottages located in Long Gully and Ironbark are associated with some of the earliest quartz mines in Bendigo. They were built by both German and Cornish miners, many of them are exceedingly small in scale.

Many of the German influenced cottages have pise or mud brick components, while the Cornish cottages were often made of random stone walls or incorporate stone walling. Often the cottages are a composite structure, a mixture of timber, stone, brick and pise and have been continually adapted with minor changes over the years.

They have a high level of integrity although many massive chimneys have been removed and extensions added in later years. The majority of cottages appear to have been erected in the mid-1860s and 1870s on Miners Residency Areas by miners themselves. They were built on Crown Land beside company mines prior to the survey of roads and seldom have a formal alignment with later street patterns. Additions that incorporate fashionable contemporary architectural detailing are small in scale and characteristically correspond to periods of prosperity, when mining work was stable. The cottages cluster around the upper contours of the slopes near

gullies and water supplies and have a relationship to each other that reflects social and family ties.

How is it Significant?

The collection of miners' cottages of the Long Gully, Ironbark, Victoria Hill and Ironbark Hill former mining areas have historic, architectural, aesthetic, scientific and social significance at a local level to the City of Bendigo. (Criteria A, B, C, D, E)

Why is it Significant?

Criterion A: Importance to the course, or pattern, of Victoria's cultural history

1) The miners' cottages of the Long Gully, Victoria Hill and Ironbark Hill former mining areas are historically significant as the homes of the working class miners who serviced some of the wealthiest and deep quartz mines of Bendigo and Eastern Australia as both waged miners and Tribute miners.

2) The miners' cottages are representative of the diverse range of miners' cottages including examples of the typical Cornish vernacular long house built by early emigrant Cornish, who formed a significant ethnic group of miners in the area. They demonstrate the way in which design, fabric and decorative embellishments reflected the evolving status of the owners as immigrant miners.

3) The miners' cottages provide an important historic insight into the domestic lives and typical homes of Cornish and German miners, some of whom worked in the related trades as blacksmiths, engine drivers, carriers and mine engineers.

Criterion B: Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

4) The miners' cottages of the Long Gully, Victoria Hill and Ironbark Hill former mining areas are associated with one of the unique features of the Victorian goldfields- the Miners Residency Area, which allowed the development of unregulated settlement on Crown land amongst mining sites. Many cottages are still intact, and provide a rare record of the home occupiers in the Ironbark Hill area during the period, 1866-1882, listing their occupations as miners or associated jobs such as carter, engine driver, blacksmith and mine manager.

5) The miners' cottages and their large gardens in Moonta area are self-made community housing that resulted from adverse possession of Crown Land at the time of the 1890s depression. The cottages belong to a group of increasingly rare structures that show a combined use of timber weatherboards and pise, rammed earth construction techniques, the mud coming from the nearby creek. Groups of mud adobe and pise rammed earth dwellings associated with the German community were once a common feature on the Bendigo goldfields and in the former Long Gully Creek area, but are now becoming increasingly rare.

6) The miners' cottages form an important visual element in the cultural landscape of Ironbark and Long Gully. They clearly tell the story of the early alluvial, puddling and deep quartz company mining and workings of the tailings in Bendigo from the 1850s through to early 1950s.

Criterion C: Potential to yield information that will contribute to an understanding of Victoria's cultural history.

7) The miners' cottages the Long Gully, Victoria Hill and Ironbark Hill former mining areas are associated with extensive archival materials, including but not restricted to the Quarterly Reports of the Mining Surveyors and Registrars, 1863-91, detailed social demographic information since 1861 particularly in Bendigo and Ballarat goldfields, scholarly research and publications as well as contemporary journals and diaries.

Criterion D: Importance in demonstrating the principal characteristics of a class of cultural places or environments.

Criterion E: importance in exhibiting aesthetic characteristics and/or in exhibiting richness, diversity or unusual integration of features.

8) The miners' cottages of the Long Gully, Victoria Hill and Ironbark Hill former mining areas are an excellent representative example of the miner's cottage, particularly associated with German and Cornish miners of Long Gully and Ironbark Hill.

9) The miners' cottages at numbers 19, 21, 25 and 24 Lazarus Street are excellent representative examples of miner's cottages particularly associated with the influence of the German community, who worked nearby on the gold mining works along Long Gully, Derwent and Sparrowhawk Gullies, where they built most of their building from locally made mud bricks and pise. All miners' cottages in the Moonta precinct are significant features and are an excellent architectural record of some of the earliest types and designs of miners' cottage.

The two former weatherboard and timber cottages at 7 and 9 Harvey Street are significant as highly intact mid 19th century miners cottages erected on Miners Residency Areas, which were retained on Crown Land until the 21st century.

10) The miners' cottages display a level of intactness and authenticity in terms of their architectural character, form and scale that demonstrates the principle characteristics of cottages, built by unemployed miners and sustenance workers, during the Depression years of 1890s and 1930s.

11) The miners' cottages of the Long Gully, Victoria Hill and Ironbark Hill former mining areas have aesthetic significance as they illustrates the rich diversity of a working class miners cottages, a key feature of the Victorian 19th century goldfields. The size, shape and design of miners' cottages provide a historical and architectural record of a vernacular class of buildings.

4.3.7 Gradings and Recommendations

Recommended for inclusion in the Schedule to the Heritage Overlay of the Greater Bendigo Planning Scheme as a serial listing.

Number	Street	Suburb	Grading
15	Adelaide Gully Rd	Golden Gully	Contributory
2	Allingham St	Golden Square	Contributory
83	Allingham St	Golden Square	Contributory
55	Arnold St	Bendigo	Contributory
382	Barnard St	Ironbark	Contributory
78	Bennett St	Long Gully	Contributory
68	Bennett St	Long Gully	Contributory
54	Breen St	Quarry Hill	Contributory
6	Broom St	Bendigo	Contributory
2	Burn St	Golden Square	Contributory
10	Cunneen St	Long Gully	Contributory
1	Daly St	Long Gully	Significant
5	Dean St	Long Gully	Contributory
15	Gibson St	North Bendigo	Contributory

19	Grant St	Long Gully	Contributory
12	Gundry St	Long Gully	Contributory
614	Hargreaves St	Golden Square	Contributory
615	Hargreaves St	Golden Square	Contributory
5	Havilah Rd	Long Gully	Contributory
27	Holdsworth Rd	Long Gully	Contributory
71	Jackson St	Long Gully	Contributory
19	Joseph St	Bendigo	Contributory
140	King St	Bendigo	Contributory
180	King St	Bendigo	Contributory
196	King St	Bendigo	Contributory
255	King St	Bendigo	Contributory
261	King St	Bendigo	Contributory
269	King St	Bendigo	Contributory
266	King St	Bendigo	Contributory
12A	Kirby St	Golden Square	Contributory
36	Macdougall Rd	Golden Square	Contributory
35A	Macdougall Rd	Golden Square	Contributory
10	Macdougall Rd	Golden Square	Contributory
23	Macdougall Rd	Golden Square	Contributory
26	Macdougall Rd	Golden Square	Contributory
48	Mackenzie St West	Golden Square	Contributory
136	Mackenzie St West	Golden Square	Contributory
193	Mackenzie St West	Golden Square	Contributory
63	Nettle St	Ironbark	Contributory
3	Pascoe St	Long Gully	Contributory
1A	Pascoe St	Long Gully	Contributory

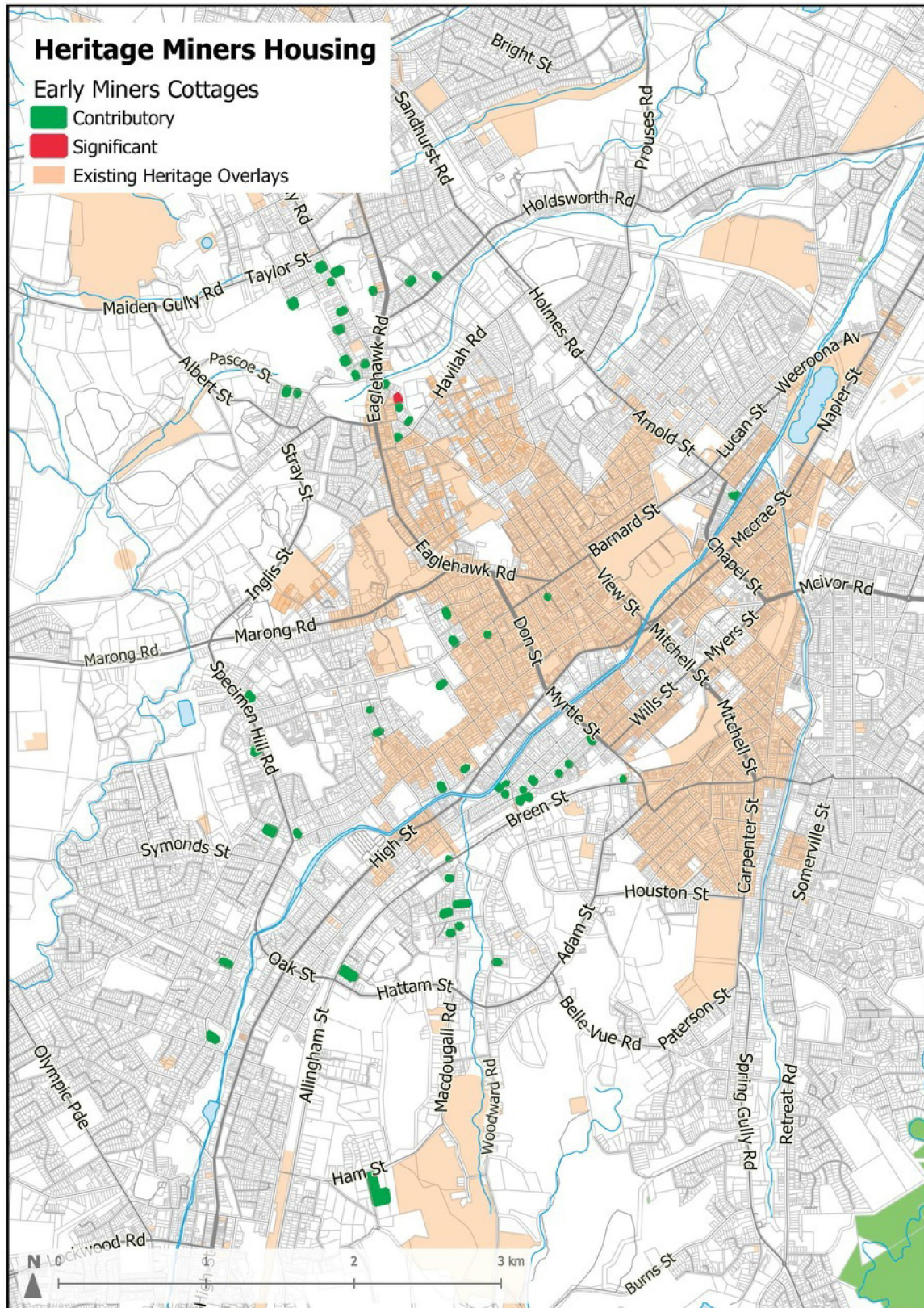


11	Philpot St	Long Gully	Contributory
3	Pitt St	Bendigo	Contributory
266	Queen St	Bendigo	Contributory
8	Rose St	Golden Square	Contributory
4	Sheridan St	Long Gully	Contributory
49	Specimen Hill Rd	Golden Square	Contributory
76	Specimen Hill Rd	Golden Square	Contributory
15	Stone St	Long Gully	Contributory
141	Thistle St	Golden Square	Contributory
15	Thistle St	Golden Square	Contributory
90	Upper California Gully Rd	Long Gully	Contributory
99	Upper California Gully Rd	Long Gully	Contributory
89	Upper California Gully Rd	Long Gully	Contributory
97	Upper California Gully Rd	Long Gully	Contributory
31	Wade Lane	Golden Square	Contributory
9	Wade Lane	Golden Square	Contributory
2	William St	Long Gully	Contributory
270	Woodward Rd	Golden Square	Contributory

Recommendations for the Schedule to the Heritage Overlay (Clause 43.01) in the Greater Bendigo Planning Scheme:

External Paint Colours Is a permit required to paint an already painted surface?	NO
Internal Alteration Controls Is a permit required for internal alterations?	NO
Tree Controls Is a permit required to remove a tree?	YES Mature conifer at 140 King Street and 19 Grant Street; Mature peppercorn at 614 Hargreaves St.
Victorian Heritage Register Is the place included on the Victorian Heritage Register?	NO
Outbuildings and fences exemptions Are there outbuildings and fences which are not exempt from notice and review?	NO
Prohibited uses may be permitted Can a permit be granted to use the place for a use which would otherwise be prohibited?	NO
Aboriginal Heritage Place Is the place an Aboriginal heritage place which is subject to the requirements of the Aboriginal Heritage Act 2006?	NO

4.3.8 Map



4.3.9 References

- *Eaglehawk and Bendigo Heritage Study*, 1993, Graeme Butler & Assoc.
- *Former Shire of Marong Heritage Studies*, 1994 and 1999, Andrew Ward & Assoc; and reviewed by the Heritage Policy Citations Review, 2011, Lovell Chen
- *Former Shires of Mclvor and Strathfieldsaye, Heathcote-Strathfieldsaye Heritage Study: Stage 1*, 2002, Earthtech
- *Former Shires of Mclvor and Strathfieldsaye Heritage Study: Stage 2*, 2010, Context Pty Ltd.
- *Ironbark Heritage Study*, 2011, Mandy Jean
- *Greater Bendigo Thematic Environmental History*, Overview Report and Aboriginal History, Lovell Chen, 2013
- *White Hills and East Bendigo Heritage Study Stage 1, Bendigo Hospital Area*, 2014, Lovell Chen
- *White Hills and East Bendigo Heritage Study Stage 2, Ascot, Bendigo, East and North Bendigo Epsom and White Hills*, 2016, 2 vols, Context Pty Ltd:
- *The Miners' Cottage Gap Study*, 2017/18, Minerva Heritage
- *Golden Square Heritage Study Stage 1 Chronological and Thematic History*, 2019, Dr. Robyn Ballinger
- *City of Greater Bendigo Heritage Gap Analysis*, 2019 Landmark Heritage Pty Ltd with David Helms
- *Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing*, 2020, Amanda Jean and Charles Fahey

4.4 Quartz Gold Boom Miners' Houses

Prepared by: Trethowan Architecture

Address

1 Abel St, Golden Square; 3, 8, 69 Allingham St, Golden Square; 64 Bennett St, Long Gully; 6 Cunneen St, Long Gully; 2 Daly St, Long Gully; 4, 14B Daniel St, Long Gully; 247, 255, 263 Eaglehawk Rd, Long Gully; North Bendigo; 9 Grant St, Long Gully; 14 Gundry St, Long Gully; 31 Holdsworth Rd, Long Gully; 2 Hollow St, Golden Square; 15 Jackson St, Long Gully; 189, 200 King St, Bendigo; 8 Laurel St, Golden Square; 16, 25, 45, 20, 41 Macdougall Rd, Golden Square; 14, 16, 44, 64, 65, 67 Mackenzie St West, Golden Square; 30 Maple St, Golden Square; 26 Oak St, Golden Square; Long Gully; 36, 94 Sparrowhawk Rd; 4 Thistle St, Bendigo; 95 Upper California Gully Rd, Long Gully; 6, 7, 12, 20 Walker St, Long Gully; 344 Woodward Rd, Golden Square.

Name: Quartz Gold Boom Miners' Houses	Survey Date: March 2021
Place Type: Residential	Architect: Unknown
Grading: Significant (Serial Listing)	Builder: Unknown
Extent of Overlay: See precinct map	Construction Date: 1870-80s



4.4.1 Historical Context

The following historical background is extracted and adapted from *Ironbark Heritage Study* (2010) Volume 1 and the *Evolution of Housing on the Bendigo Goldfields* (2020).

The Bendigo Goldfields

The majority of the Bendigo goldfields evolved geologically in the 38 north-south anticline lines of reef that lay from Bendigo East to Kangaroo Flat. Gullies and dry creeks cut across the ridges in a

west to easterly direction, flowing into the Bendigo Creek, which flows across the gravel plains of Epsom, a former shallow sea in the north, and thence into the Campaspe River, a tributary of the Murray River. The area was covered by dense Box-Ironbark forests and woodlands and was the traditional lands of the indigenous Dja Dja Wurrung people who had managed the lands according to traditional knowledge and culture for many thousands of years. Following the annexation of the land by the British Crown, the Crown granted a pastoral lease for grazing stock to pastoralists Stewart and Gibson in 1848.¹³ Following the discovery of gold in the area in 1851, thousands of gold diggers rushed to the area from all corners of the world. The Government managed access to land by these new kinds of colonists through the issue of mining leases. Mining leases, pastoral leases and Indigenous native title rights are now acknowledged to co-exist over Crown Land, but at the time the Indigenous Australians were pushed to the margins of society and their rights were not recognised.

The Bendigo gold fields, commenced in 1851, continued over the next 153 years through times of boom, decline, revival and stagnation. The last underground historic mine closed in 1954 with continued production locally. The Bendigo Goldfields is Australia's second largest in terms of historical production after Western Australia's Golden Mile (Boulder, Kalgoorlie).¹⁴ It produced the largest amount of gold of any field in Eastern Australia and retains the largest evidence of its mining past within the inner city area. The history of mining shaped and created Bendigo. It left a chaotic industrial landscape which was in a state of perpetual flux with seemingly random, scattered, small and often very isolated settlements of people across a wide area.¹⁵

In 1854 the character of the city of Bendigo (Sandhurst) changed from a collection of irregular diggings on Crown Land to a central town when the area that is now central Bendigo was surveyed by government surveyor, Richard Larritt. A government camp was established and the geometric grid layout of the town was laid out, streets surveyed and land auctioned for sale under Torrens Title. The primary factor governing settlement in the broader area, however, was mining. It was to the outer gullies and creeks within the watershed of Bendigo Creek that the alluvial miners were first drawn.¹⁶ By mid 1852 more than 4,000 diggers were arriving each week, until over 40,000 miners had arrived in the space of a few years. Tent settlements were established in 1851-2 by 'diggers' intent on finding the available alluvial gold.¹⁷ By 1861 the entire Sandhurst mining district had 41,000 people spread through a score of small mining settlements. But the majority of the goldfields remained temporary and transitional in nature with haphazard settlements and roads. Other times, lack of water drove the miners on, leaving behind Crown Land that had been dug up, trees cleared, dry gullies clogged up and a wasteland created.¹⁸ It left a legacy of large tracts of Crown Land former mine sites that encircle the city and penetrate deep within it. It is these Crown Lands and National parks in which the Dja Dja Wurrung native title interests are now recognized.

By the end of 1850s miners were experimenting with steam powered mills as well as crushers and open cut mining. More extensively than elsewhere, Bendigo miners used puddling machines. By mid 1854 there were 1,500 machines. Attention was also turning to the mining of quartz reefs and steam powered machinery for mining was being set up as early as 1855. Supporting the miners were small foundries and accompanying this phase of mining came the building of more substantial buildings. Towards the end of the 1860s the dominance of the alluvial miner was drawing to a close and by 1868 there were 4,000 alluvial miners and 3,000 quartz reef miners in Bendigo. The success of the deep shafts had grown on Hustlers Reef and Victoria Reef with associated small crushing works. The reef miners turned to steam driven crushing machines, larger mining companies were employing bigger work forces.

In the early 1860s, Bendigo's mining boom was marked by the formation of hundreds of companies. As technology and mine administration improved, so too did the confidence of investors. Larger steam plants and winding engines were installed so the mines could be worked at greater depth and also control ground water inflow. Another mining boom was in full swing in 1871 and boosted the establishment of foundries and engineering works. In a two-year period, over one thousand

¹³ Ravenswood Homestead, Heritage Victoria, <http://vhd.heritage.vic.gov.au/places/heritage/967>

¹⁴ Bendigo Mining for a summary of the history of mining to the present see website for Bendigo Mining http://www.bmnl.com.au/safety_environment/community_relations/gold_mining/bendigo_goldfield_history.htm

¹⁵ Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History 1993

¹⁶ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

¹⁷ Ballinger, Robyn, *Ironbark Hill Precinct Report*, City of Greater Bendigo, October 2005

¹⁸ Ibid

new mining companies were floated with thousands of small mining leases. A frenzy of buying and selling shares occurred at the Beehive Mining Exchange. The boom soon burst, but some mines continued to operate by digging deeper into the reefs. The large paid work force built up by mining companies in the 1870s became a regular form of male employment in Bendigo. With capitalized works, the floating population of diggers diminished. Company mining thus altered the social structure of Bendigo by established a new class of investors as well as regular employees. Mining had created distinctly working class areas in town that housed the waged miners, which was separated from the wealthy socially as well as geographically.¹⁹

The boom of the late 1860s and early 1870s was over by 1873 but until the early 1890s mining remained central to the Bendigo economy. The town was untidy, disordered, brash and with conflicting land uses right in the heart of the city.²⁰ The early ethnic mining groups were overlaid by new social divisions of wealth and power.²¹ A wider range of housing appeared during the 1870-80s. On some hills an elite suburbia emerged. The pattern of segregation was often a product of topography, between high and low land. The elite found on hill tops and the cottages in low lying gullies. Public streets were planted with trees. There were a few well known mine investors and owners, who built alongside their mines such as Lazarus and Lansell.

At the beginning of the 20th century mines were still a major employer in Bendigo but the self-image of Bendigo was changing to one of a garden city with a fine climate.²² By the 1890s architects who had reaped lucrative public contracts in the 1870s and 1880s turned to working for private clients bringing their own international style to Bendigo.

Mining declined from the early years of the twentieth century. In 1917 the majority of surviving mines were amalgamated with operations ceasing in 1923. Gold mining revived in 1930s when as many as 1,500 men worked in the alluvial mining and cyaniding. The old tailings and battery sands were re-worked by about thirty cyanide plants, employing 300 men.²³ Bendigo Mines Ltd began an extensive mining program on the Nell Gwynne, Napoleon and Carshalton lines of reef. Mines such as Royal George, Moonta and Central Nell Gwynne operated throughout this period but with little success. In contrast, the Central Deborah Mine started production in 1939 and continued until 1954.²⁴

Miners Residence Areas

All miners who built their homes on mining land were holders of a Miner's Right. This right entitled them to take out a lease for a Residence Area on mining land and build a home. The Miner's Right was an exclusive right that authorized certain rights and privileges and entitlements of the holder in the 'waste land' over which the British Crown claimed ownership. The Miner's Right only applied to auriferous land or 'waste land' that had been reserved by the British Crown as public land for its potential to yield gold. The holder of a Miner's Right did not need to be an applicant or holder of a lease for a mining tenement, that is, be an owner of a license for gold mining production. The Miner's Right was unique in the world. The miner's right of the Californian goldfields was not a legal document such as this.

These miners' houses were built by holders of a Miner's Right on auriferous land, that is land that was reserved as goldfields' commons by the colonial government to protect the economic resources of the Crown. Gold belonged to the Crown. The holder of a Miner's Right license was entitled to erect a house, collect timber, graze animals and mine for gold on their quarter acre block of auriferous land. The goldfields' commons introduced an ancient land management system from England. Bendigo had the largest goldfields commons in Victoria, covering 318.569 square kilometres that was potentially available for housing.

There were other types of commons such as town commons and farmer's commons among others. The goldfields' commons were specifically located on auriferous land and were controlled by the Courts of Mines and Warden's Courts (and after 1898 by the Department of Mines), that sat in each of the six or eight declared mining district jurisdictions. The Mine Wardens and Mining Board

¹⁹ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

²⁰ Ibid p 30

²¹ Ibid p. 34

²² Ibid p.48

²³ Cusack, F. *Bendigo a history*, revised edition, 2002, Lerk & McClure, 2002, p.244

²⁴ Eaglehawk and Bendigo Heritage Study Significant Mining Areas and Sites Repo, Vol 3 pp.123-235

members were elected by the miners from the Bendigo Mining district. They judicated over the series of Mines and Residence Area Acts according to local circumstances and conditions.

These auriferous lands served to accommodate thousands of newly arrived migrant miners and their families during the 1870s quartz boom outside township surveyed areas.

The management of the Mines and Residence Area Acts did not extend to investment into public health, sanitation, rehabilitation of contaminated mines sites or road services. The mining areas were outside the jurisdiction of local municipal and borough councils. Closure of the gold mines meant the land was abandoned and became waste lands. Many miners relocated their houses elsewhere.

The opening up of licenses on auriferous lands through the 1890s Mines Act allowed other industries to operate on Crown Land, near an available work force that was housed under the Miner's Right license. The Warden's Courts encouraged the purchase and conversion of Residence Areas to freehold title since the 1856 Mines Act, but particularly after the Mines Act 1892. Disposal of land for private sale was sporadic, unregulated and haphazard. It meant irregular shaped freehold titles were located in the midst of mining areas, often for over a century. The lots remained un-serviced and without formal roads until gradually incremental infill development and land sales transformed some areas during the 20th and 21st centuries.

4.4.2 History of Quartz Gold Boom Miners' Houses

The 1870s quartz mining boom in the Greater Bendigo area generated a huge influx of gold miners and their families seeking waged work in the gold quartz mines. The quartz mining attracted a large construction and building industry in Bendigo. Mass production of dimensioned timber products allowed quick cheap prefabricated relocatable timber houses for the migrant waged miners and their families. The modest hip roof timber, simple house built with commercially sawn timber that could be erected quickly on Crown land was the means by which miners arriving in Bendigo with their families could be rapidly housed.

The use of timber frame construction technology was new at the time and is associated with mass social housing on the Victorian goldfields. It allowed the miner to easily relocate his house to different gold fields and mining areas. The typical design consisted of a modest square shaped house consisting of either two or four rooms, with hip roof, corrugated roof, timber frame, exterior and interior lining boards. The houses were erected on mining land and are associated with the Mines Act, 1865. The threat of being moved off the land by expanding mining operations was removed by the Residence Areas Act, 1881. This made it more likely, depending on the fortunes of the owners, to erect additions, alterations and decorative external details. Competitive sale by public auction was also removed. The Amendment in 1884 removed competitive aspects of auction and controlled annual licences fees of the Residence Areas on auriferous land.

These generally small 1870s and 1880s miners' houses often formed scattered clusters of settlement grouped around the company mines. The houses were built prior to the survey of roads and there was no formal alignment with later street patterns. The houses form small settlements around the main mine shafts and battery buildings. Additions to the houses were undertaken depending on the success of the mine and could incorporate fashionable contemporary architectural detailing. Generally, this type of miners' house is small in scale and characteristically correspond to periods of prosperity, such as the great quartz boom of 1870s, when waged mining work was stable.

By the 1880s the housing stock could be easily relocated to another Residence Area without paying a penalty. By then, the holder of the Miner's Right could have several Residence Areas and lease out the properties. And improvements could be inherited by family members. This allowed entry of non-miners, other industrial or manufacturing workers to be housed in former miners' houses. The holder of the Miner's Right could become a speculative landlord. It was common to find large groups of houses headed by widows subsisting on cheap rents, renting out rooms and operating home-based businesses.

The small hipped-roof cottages readily associated with the Quartz Gold Boom typology are associated with numerous mining areas across the city. In general terms Quartz Gold Boom houses are:

- Associated with the Mines Act 1865, Residence Area Act 1881 and 1888 Amendment
- Associated with the quartz mining boom that of the 1870s-1880s

4.4.3 Description and Integrity

All Miners' Housing

Despite the variety of built form associated with miners' cottages, there are a number of similarities across the miners' cottages constructed in Bendigo through the nineteenth century. They are all located within former mining settlements and communities, tied to the geology of the place and former gold mines, associated with peak periods of activity of these mining areas. Very few of the houses are perfectly intact to the period of original construction due to changes in the Mines Acts, mining cycles and the freedom to make improvements over the long period of time. Miners' cottages are often surrounded by unrelated buildings and do not always form cohesive visual precincts. The original quarter acre blocks of the Miner's Residency areas have often been subdivided and sometimes cottages were relocated. However, they are recognisably of common typological form and materiality, relating to the specific periods of historical association.

Built form – Quartz Gold Boom Miners' Houses

Generally beginning as square plan houses with two to four rooms, with verandahs, they are typically of modest proportions, constructed with commercially sawn weatherboards, with hip roofs of corrugated metal and some fashionable contemporary architectural detailing. Chimneys were by the 1870s-80s generally internal and common later additions were to the rear or side, with later decorative embellishments or new verandahs the most frequent alterations. The houses at 41 MacDougall Road and 30 Maple Street are representative of this general form and materiality, comprising hipped roofs, weatherboard and timber frame construction, brick chimneys, continuing emphasis on symmetrical façade with simple central door and flanking window composition, and typical alterations such as the addition of verandah or detailing.



Figure 17. 41 MacDougall Road, Golden Square.



Figure 18. 30 Maple Street, Golden Square.

4.4.4 Comparative Analysis

The miners houses can be compared to other Victorian era precincts such as those at Golden Square (HO24), Victoria Hill Mining & Residential Area (HO26) Calder Highway, and Bannerman Street (HO841). The house at 71 Marong Road, Golden Square (HO26) is a simple hipped roof form, with weatherboard walls and metal sheet roof, brick chimneys and lacework verandah, and is a Victorian miners house of a similar aesthetic quality and alteration to many of the houses in the serial listing. The house at 2 Harry Street, within HO841 Bannerman Street is similar again with timber frame weatherboard construction, internal chimney, verandah and symmetrical façade with central door flanked by two single sash windows. The house at 20 Bannerman Street is contributory within HO841 and demonstrates a comparable layering of historical periods as some of the subject

properties, for example the combination of external chimneys, with the larger scale and hipped roof, with the addition of an interwar verandah to the earlier Victorian form. Another comparable house recently added to the HO is 27 (now 27B) Pallet Street. The house demonstrates a similar architectural form and materiality. The house had a post-war verandah when it was added to the HO but has since been renovated and restored. While individually significant due to its individual historical associations, it is comparable in terms of its representative value. The house was added to the HO as:

a representative architectural example of an intact 19th century wealthy miner's villa, an example of an Australian vernacular architecture that represents the building techniques and social mores of Cornish miner immigrants, typically engine driver, mine engineer or mine manager status. The subject land was developed under a Miner's Right and Residence Area in one of the earliest and most important gold mining landscapes of Bendigo between New Chum and Sheepshead lines of Reef.



Figure 19. 71 Marong Road, Golden Square. Source: Google Maps 2021.



Figure 20. 2 Harry Street, Bendigo. Source: Google Maps 2021.



Figure 21. 20 Bannerman Street, Bendigo. Source: Google Maps 2021.



Figure 22. 27B Pallet Street, Golden Square. Source: Realestate.com.au

4.4.5 Assessment Against Criteria

Criteria referred to in Planning Practice Note 1: Applying the Heritage Overlay, Department of Environment, Land, Water and Planning, revised August 2018, modified for the local context.

Criterion A: Importance to the course or pattern of the City of Greater Bendigo's cultural or natural history (historical significance)

The Quartz Gold miners' houses are historically significant as the homes of the waged miners associated with the influx of thousands of miners and their families to participate in the great quartz reef gold mining boom period in Bendigo from the late 1860s to the mid 1870s. The Greater Bendigo area was one of the richest gold mining areas at the time in Australia. The miners' houses provide an important historic insight into the domestic lives and typical homes of miners, some of whom worked in the related trades as blacksmiths, engine drivers, carriers and mine engineers. They are associated with the development of the construction industry in

Bendigo and widespread use of timber frame construction technology used to solve the many issues of mass social housing on the Victorian goldfields.

The miners' houses are historically significant for their association with the Mines Act, 1865, and the Residence Areas Act 1881 and the Amendment in 1884 that removed competitive aspects of auction and controlled annual licences fees of the Residence Areas on auriferous land.

Criterion B: Possession of uncommon, rare, or endangered aspects of the City of Greater Bendigo's cultural or natural history (rarity).

N/A

Criterion C: Potential to yield information that will contribute to an understanding of the City of Greater Bendigo's cultural or natural history (research potential).

N/A

Criterion D: Importance in demonstrating the principal characteristics of a class of cultural or natural places or environments (representativeness).

The timber frame weatherboard Quartz Gold miners' houses are significant representative examples of the introduction of mass produced dimensioned prefabricated timber construction technology which allowed standardized dimensions, cheap relocatable housing to be built quickly and also disassembled.

Criterion E: Importance in exhibiting particular aesthetic characteristics (aesthetic significance).

The miners' houses associated with the quartz gold mining boom have aesthetic and representative commonalities, often small or modest, square shaped houses of two to four rooms that may have been added to later. They are generally constructed of weatherboard and timber, with simple hipped metal sheet roofs. This generic type of prefabricated house is associated with mass housing on the Victorian goldfields. By the late 1870s and 1880s houses became more standardized and were constructed by carpenters rather than miners themselves.

Criterion F: Importance in demonstrating a high degree of creative or technical achievement at a particular period (technical significance).

N/A

Criterion G: Strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons. This includes the significance of a place to Indigenous peoples as part of their continuing and developing cultural traditions (social significance).

N/A

Criterion H: Special association with the life or works of a person, or group of persons, of importance in the City of Greater Bendigo's history (associative significance).

N/A

4.4.6 Statement of Significance

What is significant?

The timber weatherboard miners' houses associated with the quartz gold mining boom in Greater Bendigo, erected c.1870s-1880s in miners Residence Areas, are significant.

Mature exotic trees contribute to the setting of the place at 26 Oak Street and 9 Grant Street.

Original nineteenth century attached, or detached outbuildings may also contribute to the place's historical significance.

Alterations and additions after 1901 are not significant.

How is it Significant?

The collection of Quartz Gold miners' houses associated with the Miner's Right 1855, Mines Acts, 1865, 1881 and 1884 Amendment on former goldfields' commons, auriferous or mining lands in the greater Bendigo area have historic, aesthetic and representative significance at a local level to the City of Bendigo. (Criteria A, D and E)

Why is it Significant?

The Quartz Gold miners' houses are historically significant as the homes of the waged miners associated with the influx of thousands of miners and their families to participate in the great quartz reef gold mining boom period in Bendigo from the late 1860s to the mid-1870s. The Greater Bendigo area was one of the richest gold mining areas at the time in Australia. The miners' houses provide an important historic insight into the domestic lives and typical homes of miners, some of whom worked in the related trades as blacksmiths, engine drivers, carriers and mine engineers. They are associated with the development of the construction industry in Bendigo and widespread use of standardized timber construction to solve the many issues of mass social housing on the Victorian goldfields.

The miners' houses are historically significant for their association with the Mines Act, 1865, and the Residence Areas Act 1881 and the Amendment in 1884 that removed competitive aspects of auction and controlled annual licences fees of the Residence Areas on auriferous land. (Criterion A)

The timber frame weatherboard miners' houses are significant representative examples of the introduction of mass produced dimensioned prefabricated timber construction technology which allowed standardized dimensions, cheap relocatable housing to be built quickly and also disassembled. (Criterion D)

The miners' houses associated with the quartz gold mining boom have aesthetic and representative significance for the use of timber construction technology to solve the problem of housing on the goldfields. The examples of this generic type of prefabricated house is associated with mass housing on the Victorian goldfields. By the late 1870s and 1880s houses became more standardized and were constructed by carpenters to standard patterns and design. (Criterion E)

4.4.7 Gradings and Recommendations

Recommended for inclusion in the Schedule to the Heritage Overlay of the Greater Bendigo Planning Scheme as a serial listing.

Number	Street	Suburb	Grading
1	Abel St	Golden Square	Contributory
3	Allingham St	Golden Square	Contributory
8	Allingham St	Golden Square	Contributory
69	Allingham St	Golden Square	Contributory
64	Bennett St	Long Gully	Contributory
6	Cunneen St	Long Gully	Contributory
2	Daly St	Long Gully	Contributory
4	Daniel St	Long Gully	Contributory
14B	Daniel St	Long Gully	Contributory
247	Eaglehawk Rd	Long Gully	Contributory



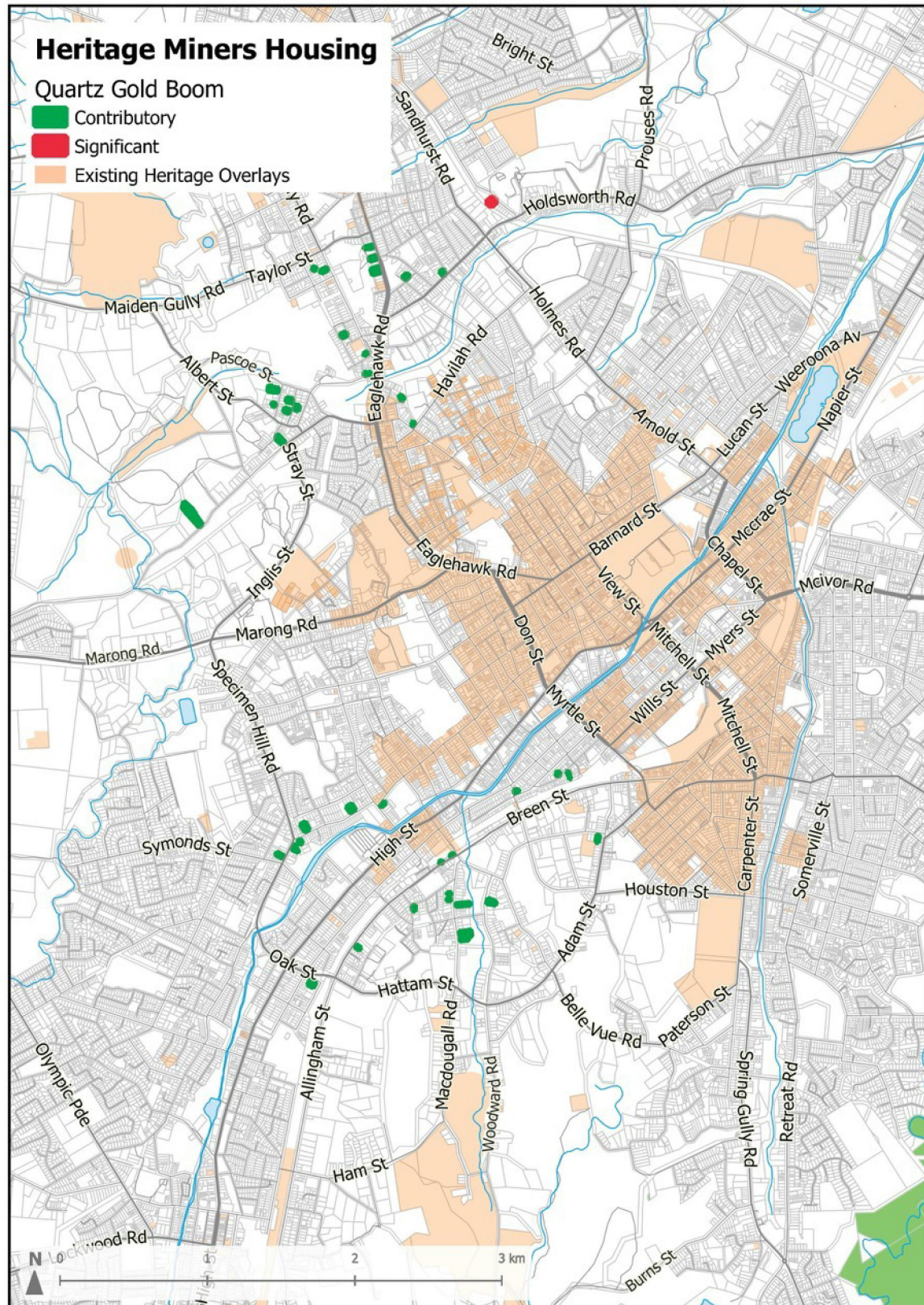
255	Eaglehawk Rd	Long Gully	Contributory
263	Eaglehawk Rd	Long Gully	Contributory
9	Grant St	Long Gully	Contributory
14	Gundry St	Long Gully	Contributory
31	Holdsworth Rd	Long Gully	Contributory
2	Hollow St	Golden Square	Contributory
15	Jackson St	Long Gully	Contributory
200	King St	Bendigo	Contributory
189	King St	Bendigo	Contributory
8	Laurel St	Golden Square	Contributory
16	Macdougall Rd	Golden Square	Contributory
25	Macdougall Rd	Golden Square	Contributory
45	Macdougall Rd	Golden Square	Contributory
20	Macdougall Rd	Golden Square	Contributory
41	Macdougall Rd	Golden Square	Contributory
64	Mackenzie St West	Golden Square	Contributory
67	Mackenzie St West	Golden Square	Contributory
14	Mackenzie St West	Golden Square	Contributory
16	Mackenzie St West	Golden Square	Contributory
44	Mackenzie St West	Golden Square	Contributory
65	Mackenzie St West	Golden Square	Contributory
30	Maple St	Golden Square	Contributory
26	Oak St	Golden Square	Contributory
36	Sparrowhawk Rd	Long Gully	Contributory
94	Sparrowhawk Rd	West Bendigo	Contributory
4	Thistle St	Bendigo	Contributory

95	Upper California Gully Rd	Long Gully	Contributory
6	Walker St	Long Gully	Contributory
7	Walker St	Long Gully	Contributory
12	Walker St	Long Gully	Contributory
20	Wallan St	Long Gully	Contributory
344	Woodward Rd	Golden Square	Contributory

Recommendations for the Schedule to the Heritage Overlay (Clause 43.01) in the Greater Bendigo Planning Scheme:

External Paint Colours Is a permit required to paint an already painted surface?	NO
Internal Alteration Controls Is a permit required for internal alterations?	NO
Tree Controls Is a permit required to remove a tree?	YES Mature peppercorns at 26 Oak Street and 9 Grant Street
Victorian Heritage Register Is the place included on the Victorian Heritage Register?	NO
Outbuildings and fences exemptions Are there outbuildings and fences which are not exempt from notice and review?	NO
Prohibited uses may be permitted Can a permit be granted to use the place for a use which would otherwise be prohibited?	NO
Aboriginal Heritage Place Is the place an Aboriginal heritage place which is subject to the requirements of the Aboriginal Heritage Act 2006?	NO

4.4.8 Map



4.4.9 References

- *Eaglehawk and Bendigo Heritage Study*, 1993, Graeme Butler & Assoc.
- *Former Shire of Marong Heritage Studies*, 1994 and 1999, Andrew Ward & Assoc; and reviewed by the *Heritage Policy Citations Review*, 2011, Lovell Chen
- *Former Shires of Mclvor and Strathfieldsaye, Heathcote-Strathfieldsaye Heritage Study: Stage 1*, 2002, Earthtech
- *Former Shires of Mclvor and Strathfieldsaye Heritage Study: Stage 2*, 2010, Context Pty Ltd.
- *Ironbark Heritage Study*, 2011, Mandy Jean
- *Greater Bendigo Thematic Environmental History, Overview Report and Aboriginal History*, Lovell Chen, 2013
- *White Hills and East Bendigo Heritage Study Stage 1*, Bendigo Hospital Area, 2014, Lovell Chen
- *White Hills and East Bendigo Heritage Study Stage 2*, Ascot, Bendigo, East and North Bendigo Epsom and White Hills, 2016, 2 vols, Context Pty Ltd:
- *The Miners' Cottage Gap Study*, 2017/18, Minerva Heritage
- *Golden Square Heritage Study Stage 1 Chronological and Thematic History*, 2019, Dr. Robyn Ballinger
- *City of Greater Bendigo Heritage Gap Analysis*, 2019 Landmark Heritage Pty Ltd with David Helms
- *Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing*, 2020, Amanda Jean and Charles Fahey

4.5 Workers and Mine Speculators' Houses

Prepared by: Trethowan Architecture

Address

6 Allingham St, Golden Square; 390 Barnard St, Ironbark; 67, 72 Bennett St, Long Gully; 75, 90, 95 Booth St, Golden Square; 46, 56 Breen St, Quarry Hill; 106 Chum St, Golden Square; 22 Davey Close, Flora Hill; 205, 208, 267 Eaglehawk Rd Long Gully; 5 Grant St Long Gully; 15 Holdsworth Rd Long Gully; 57, 59, 63, 67 Jackson St Long Gully; 176, 187, 144, 145, 185, 192, 194, 207, 219, 222, 194A King St, Bendigo; 64, 70 Lily St Bendigo; 4, 5, 15, 21, 22, 29, 34 Macdougall Rd Golden Square; 14, 20 Maple St Golden Square; 58, 62, 66 Old High St Golden Square; 40, 64 Sparrowhawk Rd West Bendigo; 17 Wade Lane Golden Square; 26 Wallan St, Long Gully.

Name: Workers and Mine Speculators' Cottages	Survey Date: March 2021
Place Type: Residential	Architects: Unknown
Grading: Significant (Serial Listing)	Builders: Unknown
Extent of Overlay: See precinct map	Construction Range: 1890s



4.5.1 Historical Context

The following historical background is extracted and adapted from *Ironbark Heritage Study* (2010) Volume 1 and the *Evolution of Housing on the Bendigo Goldfields* (2020).

The Bendigo Goldfields

The majority of the Bendigo goldfields evolved geologically in the 38 north-south anticline lines of reef that lay from Bendigo East to Kangaroo Flat. Gullies and dry creeks cut across the ridges in a west to easterly direction, flowing into the Bendigo Creek, which flows across the gravel plains of Epsom, a former shallow sea in the north, and thence into the Campaspe River, a tributary of the Murray River. The area was covered by dense Box-Ironbark forests and woodlands and was the traditional lands of the indigenous Dja Dja Wurrung people who had managed the lands according to traditional knowledge and culture for many thousands of years. Following the annexation of the land by the British Crown, the Crown granted a pastoral lease for grazing stock to pastoralists

Stewart and Gibson in 1848.²⁵ Following the discovery of gold in the area in 1851, thousands of gold diggers rushed to the area from all corners of the world. The Government managed access to land by these new kinds of colonists through the issue of mining leases. Mining leases, pastoral leases and Indigenous native title rights are now acknowledged to co-exist over Crown Land, but at the time the Indigenous Australians were pushed to the margins of society and their rights were not recognised.

The Bendigo gold fields, commenced in 1851, continued over the next 153 years through times of boom, decline, revival and stagnation. The last underground historic mine closed in 1954 with continued production locally. The Bendigo Goldfields is Australia's second largest in terms of historical production after Western Australia's Golden Mile (Boulder, Kalgoorlie).²⁶ It produced the largest amount of gold of any field in Eastern Australia and retains the largest evidence of its mining past within the inner city area. The history of mining shaped and created Bendigo. It left a chaotic industrial landscape which was in a state of perpetual flux with seemingly random, scattered, small and often very isolated settlements of people across a wide area.²⁷

In 1854 the character of the city of Bendigo (Sandhurst) changed from a collection of irregular diggings on Crown Land to a central town when the area that is now central Bendigo was surveyed by government surveyor, Richard Larritt. A government camp was established and the geometric grid layout of the town was laid out, streets surveyed and land auctioned for sale under Torrens Title. The primary factor governing settlement in the broader area, however, was mining. It was to the outer gullies and creeks within the watershed of Bendigo Creek where the alluvial miners first worked.²⁸ By mid 1852 more than 4,000 diggers were arriving each week, until over 40,000 miners had arrived in the space of a few years. Tent settlements were established in 1851-2 by 'diggers' intent on finding the available alluvial gold.²⁹ By 1861 the entire Sandhurst mining district had 41,000 people spread through a score of small mining settlements. But the majority of the goldfields remained temporary and transitional in nature with haphazard settlements and roads. Other times, lack of water drove the miners on, leaving behind Crown Land that had been dug up, trees cleared, dry gullies clogged up and a wasteland created.³⁰ It left a legacy of large tracts of Crown Land former mine sites that encircle the city and penetrate deep within it. It is these Crown Lands and National parks in which the Dja Dja Wurrung native title interests are now recognized.

By the end of 1850s miners were experimenting with steam powered mills as well as crushers and open cut mining. More extensively than elsewhere, Bendigo miners used puddling machines. By mid 1854 there were 1,500 machines. Attention was also turning to the mining of quartz reefs and steam powered machinery for mining was being set up as early as 1855. Supporting the miners were small foundries and accompanying this phase of mining came the building of more substantial buildings. Towards the end of the 1860s the dominance of the alluvial miner was drawing to a close and by 1868 there were 4,000 alluvial miners and 3,000 quartz reef miners in Bendigo. The success of the deep shafts had grown on Hustlers Reef and Victoria Reef with associated small crushing works. The reef miners turned to steam driven crushing machines, larger mining companies were employing bigger work forces.

In the early 1860s Bendigo's mining boom was marked by the formation of hundreds of companies. As technology and mine administration improved, so did the confidence of investors. Larger steam plants and winding engines were installed so the mines could be worked at greater depth and also control ground water inflow. Another mining boom was in full swing in 1871 and boosted the establishment of foundries and engineering works. In a two-year period, over one thousand new mining companies were floated with thousands of small mining leases. A frenzy of buying and selling shares occurred at the Beehive Mining Exchange. The boom soon burst, but some mines continued to operate by digging deeper into the reefs. In the early 1870s companies built up a paid work force and mining became the staple form of male employment in Bendigo. With capitalized works, the floating population of diggers diminished. Company mining altered the social structure of Bendigo. It established a new class of investors. Mining had created distinctly working class

²⁵ Ravenswood Homestead, Heritage Victoria, <http://vhd.heritage.vic.gov.au/places/heritage/967>

²⁶ Bendigo Mining for a summary of the history of mining to the present see website for Bendigo Mining http://www.bmnl.com.au/safety_environment/community_relations/gold_mining/bendigo_goldfield_history.htm

²⁷ Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History 1993

²⁸ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

²⁹ Ballinger, Robyn, *Ironbark Hill Precinct Report*, City of Greater Bendigo, October 2005

³⁰ Ibid

areas in town that housed the waged miners, which was separated from the wealthy socially as well as geographically.³¹

The boom of the late 1860s and early 1870s was over by 1873 but until the early 1890s mining remained central to the Bendigo economy. The town was untidy, disordered, brash and with conflicting land uses right in the heart of the city.³² The early ethnic mining groups were overlaid by new social divisions of wealth and power.³³ A wider range of housing appeared during the 1870-80s. On some hills an elite suburbia emerged. The pattern of segregation was often a product of topography, between high and low land. The elite found on hill tops and the cottages in low lying gullies. Public streets were planted with trees. There were a few well known mine investors and owners, who built alongside their mines such as Lazarus and Lansell.

At the beginning of the 20th century mines were still a major employer in Bendigo but the self-image of Bendigo was changing to one of a garden city with a fine climate.³⁴ By the 1890s architects who had reaped lucrative public contracts in the 1870s and 1880s turned to working for private clients bringing their own international style to Bendigo.

Mining declined from the early years of the twentieth century. In 1917 the majority of surviving mines were amalgamated with operations ceasing in 1923. Gold mining revived in 1930s when as many as 1,500 men worked in the alluvial mining and cyaniding. The old tailings and battery sands were re-worked by about thirty cyanide plants, employing 300 men.³⁵ Bendigo Mines Ltd began an extensive mining program on the Nell Gwynne, Napoleon and Carshalton lines of reef. Mines such as Royal George, Moonta and Central Nell Gwynne operated throughout this period but with little success. In contrast, the Central Deborah Mine started production in 1939 and continued until 1954.³⁶

Miners Residence Areas

All miners who built their homes on mining land were holders of a Miner's Right. This right entitled them to take out a lease for a Residence Area on mining land and build a home. The Miner's Right was an exclusive right that authorized certain rights and privileges and entitlements of the holder in the 'waste land' over which the British Crown claimed ownership. The Miner's Right only applied to auriferous land or 'waste land' that had been reserved by the British Crown as public land for its potential to yield gold. The holder of a Miner's Right did not need to be an applicant or holder of a lease for a mining tenement, that is, be an owner of a license for gold mining production. The Miner's Right was unique in the world. The miner's right of the Californian goldfields was not a legal document such as this.

All miners' houses were built by holders of a Miner's Right on auriferous land, that is land that was reserved as goldfields' commons by the colonial government to protect the economic resources of the Crown. Gold belonged to the Crown. The goldfields' commons introduced an ancient land management system from England. Bendigo had the largest goldfields commons in Victoria, covering 318.569 square kilometres that was potentially available for housing.

There were other types of commons such as town commons and farmer's commons among others. The goldfields' commons were specifically located on auriferous land and were controlled by the Courts of Mines and Warden's Courts (and after 1898 by the Department of Mines), that sat in each of the six or eight declared mining district jurisdictions. The Mine Wardens and Mining Board members were elected by the miners from the Bendigo Mining district. They judicated over the series of Mines and Residence Area Acts according to local circumstances and conditions.

These auriferous lands served to accommodate thousands of newly arrived migrant miners and their families during the 1870s quartz boom outside township surveyed areas.

The management of the Mines and Residence Area Acts did not extend to investment into public health, sanitation, rehabilitation of contaminated mines sites or road services. The mining areas were outside the jurisdiction of local municipal and borough councils. Closure of the gold mines

³¹ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

³² Ibid p 30

³³ Ibid p. 34

³⁴ Ibid p.48

³⁵ Cusack, F. *Bendigo a history*, revised edition, 2002, Lerk & McClure, 2002, p.244

³⁶ Eaglehawk and Bendigo Heritage Study Significant Mining Areas and Sites Repo, Vol 3 pp.123-235

meant the land was abandoned and became waste lands. Many miners relocated their houses elsewhere.

The opening up of licenses on auriferous lands through the 1890s Mines Act allowed other industries to operate on Crown Land, near an available work force that was housed under the Miner's Right license. The Warden's Courts encouraged the purchase and conversion of Residence Areas to freehold title since the 1856 Mines Act, but particularly after the Mines Act 1892. Disposal of land for private sale was sporadic, unregulated and haphazard. It meant irregular shaped freehold titles were located in the midst of mining areas, often for over a century. The lots remained un-serviced and without formal roads until gradually incremental infill development and land sales transformed some areas during the 20th and 21st centuries.

4.5.2 History of Workers and Mine Speculators' Houses

A revival in the quartz mining operations during the 1890s led to a mining boom in Bendigo. The associated Mines Act, 1890, and Mines Act, 1892, had an important impact on the development of housing across the goldfields' commons, mining land of the greater Bendigo area. In 1891 there were 2,400 Residence Areas with associated miners' houses. The Mines Act, 1892, which upheld the right of the Crown to ownership of minerals on all lands, meant that sale of Crown land for private ownership was now actively encouraged. It could be alienated without the Crown losing ownership of the minerals beneath the soil. In addition, the Act negated the power of mining officials to cancel Residence Areas for the purpose of mining operations.

The 1890 and 1897 Mines Acts permitted residency areas to be leased by non-miners, in effect opening up abandoned or unused mining land to development. Conversion of the land to freehold title was encouraged. Certainty of tenure, cheap land and growth of the middle class led to a boom in housing construction at a time when the rest of Victoria was experiencing economic depression. The strong local building construction industry, presence of a large number of prominent émigré architectural firms, production of pattern books and activity of building societies such as the early Bendigo Building Society/Bank which provided mortgages for prospective property owners, all led to a renewed optimism in house construction with the popularity of decorative styles. Many houses now had five to six or even eight rooms. The designs were more elaborate with intricate decorative detailing, and complex roof forms and large gardens.

The more sophisticated occupational structure that emerged with a mature mining community required the services of a range of unskilled workers and tradesmen. The late expansion of the Residence Area on auriferous land included non-miners, that is manual and skilled workers and women holders of crown land. The Mines Act, 1897, considerably reduced annual fees of the Residence Areas and the Mines Act, 1910, permitted the transfer of Residence Areas to widows whose husbands had died intestate and without probate, to continue occupation and furthermore permit inheritance of these places. The consequence of these acts ensured the continued availability of cheap housing for workers. It also provided full security of land occupation resulting in increased investment in house construction and gradual conversion to freehold title. The evolution of the insecure miner's right to a more permanent miner's residence area, which by the mid-1880s provided all the benefits of freehold, led to the construction of grander bigger homes by the 1890s.

The larger decorative cottages readily associated with the Worker and Mine Speculators' typology are associated with numerous mining areas across the city. In general terms Workers and Mine Speculator houses are:

- Associated with the Mines Act 1890, Mines Act 1892, Mines Act 1897 and Mines Act 1910
- Closely aligned with the late expansion of the Residence Area that opened auriferous land for habitation to non-miners, manual and skilled workers and women holders of Crown land leases in the 1890s

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4.5.3 Description and Integrity

All Miners' Housing

Despite the variety of built form associated with miners' houses there are a number of similarities across the miners' houses constructed in Bendigo through the nineteenth century. They are all located within former mining settlements and communities, tied to the geology of the place and former gold mines, associated with peak periods of activity of these mining areas. Very few of the houses are perfectly intact to the period of original construction due to changes in the Mines Acts, mining cycles and the freedom to make improvements over the long period of time. Miners cottages are often surrounded by unrelated buildings and do not always form cohesive visual precincts. The original quarter acre blocks of the Miner's Residency areas have often been subdivided and sometimes cottages were relocated. However they are recognisably of common typological form and materiality, relating to the specific periods of historical association.

Workers and Mine Speculators' Houses

These houses were often larger houses of 5-8 rooms sometimes set in large gardens. Materials continued to be chiefly weatherboard walls and corrugated metal roofs with internal chimneys, but with more complex roof forms comprising combinations of hip or gable forms, more ornate verandahs and decorative detailing such as timber verandah details, corbel courses, friezes or polychrome brick chimney crowns. Rear additions or extensions were common, whether in skillion or hipped roof forms. The house at 176 King Street demonstrates a typical hipped roof form with a decorative front gable attached, polychrome brick chimneys, and decorative verandah. The house at 72 Bennett Street assumes an L-shaped plan with projecting gable, but with a late Victorian style return or corner verandah, bichrome brick chimney, and decorative timber gable ends. The house at 29 MacDougall Road has less common external brick chimney retained but with more elaborate Victorian period detailing added, perhaps after the original construction, to the front façade.



Figure 23. 176 King Street, Bendigo



Figure 24. 72 Bennett Street, Bendigo



Figure 25. 29 MacDougall Road, Golden Square

4.5.4 Comparative Analysis

As a grouping, the workers and mine speculators' houses can be compared to those in other Victorian era precincts such as those at Golden Square (HO24), Victoria Hill Mining & Residential Area (HO26) Calder Highway, and Bannerman Street (HO841). The house at 91 Marong Road, Bendigo for example is graded contributory within HO26. It demonstrates similar combination of more complex roof forms including decorative front gable, timber frieze, ornate verandah, but continues to express the simplicity and relatively scale of a miners cottage. The house at 5 Beech Street is contributory within HO24 and demonstrates typical mining cottage form with L-shaped plan and projecting gable with decorative gable end, Edwardian style decorations such as the timber window hood and verandah posts, with less typical external chimneys. Comparable to many of the miners' houses, the house at 5 Beech Street appears to have been constructed in phases over distinct historical periods.



Figure 26. 91 Marong Road, Bendigo. Source: Google Maps 2021.



Figure 27. 5 Beech Street, Bendigo. Google Maps 2021.

4.5.5 Assessment Against Criteria

Criteria referred to in Planning Practice Note 1: Applying the Heritage Overlay, Department of Environment, Land, Water and Planning, revised August 2018, modified for the local context.

Criterion A: Importance to the course or pattern of the City of Greater Bendigo's cultural or natural history (historical significance)

The miners' houses on former mines lands in the Bendigo area are historically significant during a transition period of the 1890s when former miner's residency areas were opened up to other occupations. Newly built houses demonstrate the way in which design, fabric and decorative embellishments reflected the evolving status of the owners in a mature mining era.

The miners' houses have historic significance associated with the Mines Act, 1890, Mines Act, 1892, Mines Act, 1897, and the Mines Act, 1910, which ensured the availability of cheap housing for workers. It also provided full security of land occupation resulting in increased investment in larger more opulent house construction and the gradual conversion of many of the former mining lands to freehold title.

Criterion B: Possession of uncommon, rare, or endangered aspects of the City of Greater Bendigo's cultural or natural history (rarity).

N/A

Criterion C: Potential to yield information that will contribute to an understanding of the City of Greater Bendigo's cultural or natural history (research potential).

N/A

Criterion D: Importance in demonstrating the principal characteristics of a class of cultural or natural places or environments (representativeness).

The later miners' houses located on the former Bendigo goldfields' commons, auriferous or mining lands, in the greater Bendigo area have representative significance as they provide a remarkable record of the development of mass social housing on a large scale during the 19th century. The Mines Acts of 1890, 1897 and 1910 introduced a complexity to the Residency Areas that resulted in different attributes to the miners' houses. The diversification of the mining policy with regard to disposal of wasteland, abandoned mining lands, permitted new opportunities for the private individual in outer areas of Bendigo that enabled a transition to working class and middleclass suburbs, and also created a rare mix of housing types.

Criterion E: Importance in exhibiting particular aesthetic characteristics (aesthetic significance).

The later miners' houses located on the former Bendigo goldfields' commons, auriferous or mining lands, in the greater Bendigo area have representative and aesthetic significance as they provide a record of the development of mass social housing on a large scale during the 19th century. The legacy of different housing designs and features have aesthetic significance in demonstrating the rich diversity of working-class miners' housing, a key feature of the Victorian 19th century goldfields. These later periods of the Victorian miners houses demonstrate larger size than their earlier counterparts, sometimes with L-shaped plans and projecting gables, greater decorative elaboration to verandahs, gable ends, chimneys or windows.

Criterion F: Importance in demonstrating a high degree of creative or technical achievement at a particular period (technical significance).

N/A

Criterion G: Strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons. This includes the significance of a place to Indigenous peoples as part of their continuing and developing cultural traditions (social significance).

N/A

Criterion H: Special association with the life or works of a person, or group of persons, of importance in the City of Greater Bendigo's history (associative significance).

N/A

4.5.6 Statement of Significance

What is significant?

The houses associated with the expansion of miners Residential Areas under the Mines Acts of 1890, 1897 and 1910, are significant.

Original nineteenth century attached or detached outbuildings may also contribute to the place's historical significance.

Post-war alterations and additions are not significant.

How is it Significant?

The collection of miners' houses associated with the Mines Acts, 1890, 1892, 1897 and 1910, on former goldfields' commons, auriferous or mining lands in the greater Bendigo area have historic, representative and aesthetic significance as well as potential to yield further knowledge at a local level to the City of Bendigo. (Criteria A, D and E).

Why is it Significant?

The miners' houses on former mines lands in the Bendigo area are historically significant during a transition period of the 1890s when former miner's residency areas were opened up to other occupations. Newly built houses demonstrate the way in which design, fabric and decorative embellishments reflected the evolving status of the owners in a mature mining era.

The miners' houses have historic significance associated with the Mines Act, 1890, Mines Act, 1892, Mines Act, 1897, and the Mines Act, 1910, which ensured the availability of cheap housing

for workers. It also provided full security of land occupation resulting in increased investment in larger more opulent house construction and the gradual conversion of many of the former mining lands to freehold title. (Criterion A)

The later miners' houses located on the former Bendigo goldfields' commons, auriferous or mining lands, in the greater Bendigo area have representative significance as they provide a remarkable record of the development of mass social housing on a large scale during the 19th century. The Mines Acts of 1890, 1897 and 1910 introduced a complexity to the Residency Areas that resulted in different attributes to the miners' houses. The diversification of the mining policy with regard to disposal of wasteland, abandoned mining lands, permitted new opportunities for the private individual in areas of Bendigo that enabled a transition to working class and middleclass suburbs, and also created a rare mix of housing types. (Criterion D)

The later miners' houses located on the former Bendigo goldfields' commons, auriferous or mining lands, in the greater Bendigo area have representative and aesthetic significance as they provide a remarkable record of the development of mass social housing on a large scale during the 19th century. The legacy of different housing designs and features have aesthetic significance in demonstrating the rich diversity of working-class miners' housing, a key feature of the Victorian 19th century goldfields. While many of the period continued the tradition of the square hipped roof cottage, they were often larger and assumed greater elaborate detailing, and/or L-shaped plans with projecting gables, decorative gable ends, chimneys, doors or windows. (Criterion E)

4.5.7 Gradings and Recommendations

Recommended for inclusion in the Schedule to the Heritage Overlay of the Greater Bendigo Planning Scheme as a serial listing.

Number	Street	Suburb	Grading
6	Allingham St	Golden Square	Contributory
390	Barnard St	Ironbark	Contributory
67	Bennett St	Long Gully	Contributory
72	Bennett St	Long Gully	Contributory
90	Booth St	Golden Square	Contributory
75	Booth St	Golden Square	Contributory
95	Booth St	Golden Square	Contributory
46	Breen St	Quarry Hill	Contributory
56	Breen St	Quarry Hill	Contributory
106	Chum St	Golden Square	Contributory
22	Davey Close	Flora Hill	Contributory
205	Eaglehawk Rd	Long Gully	Contributory
208	Eaglehawk Rd	Long Gully	Contributory
267	Eaglehawk Rd	Long Gully	Contributory
5	Grant St	Long Gully	Contributory



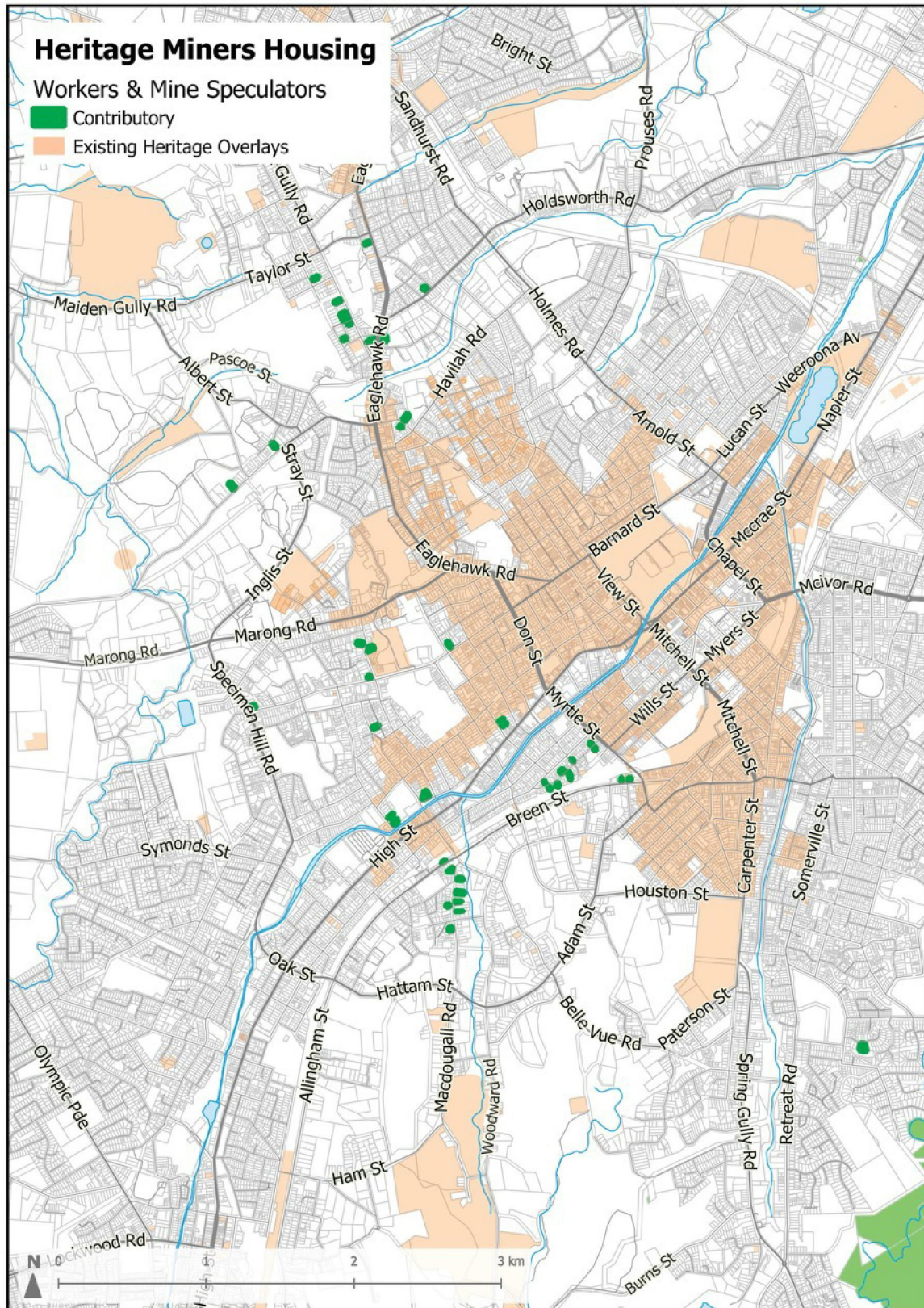
15	Holdsworth Rd	Long Gully	Contributory
67	Jackson St	Long Gully	Contributory
57	Jackson St	Long Gully	Contributory
59	Jackson St	Long Gully	Contributory
63	Jackson St	Long Gully	Contributory
176	King St	Bendigo	Contributory
187	King St	Bendigo	Contributory
144	King St	Bendigo	Contributory
145	King St	Bendigo	Contributory
185	King St	Bendigo	Contributory
192	King St	Bendigo	Contributory
194	King St	Bendigo	Contributory
207	King St	Bendigo	Contributory
219	King St	Bendigo	Contributory
222	King St	Bendigo	Contributory
194A	King St	Bendigo	Contributory
64	Lily St	Bendigo	Contributory
70	Lily St	Bendigo	Contributory
4	Macdougall Rd	Golden Square	Contributory
5	Macdougall Rd	Golden Square	Contributory
15	Macdougall Rd	Golden Square	Contributory
21	Macdougall Rd	Golden Square	Contributory
22	Macdougall Rd	Golden Square	Contributory
29	Macdougall Rd	Golden Square	Contributory
34	Macdougall Rd	Golden Square	Contributory
14	Maple St	Golden Square	Contributory
20	Maple St	Golden Square	Contributory
66	Old High St	Golden Square	Contributory

58	Old High St	Golden Square	Contributory
62	Old High St	Golden Square	Contributory
40	Sparrowhawk Rd	Long Gully	Contributory
64	Sparrowhawk Rd	West Bendigo	Contributory
17	Wade Lane	Golden Square	Contributory
26	Wallan St	Long Gully	Contributory

Recommendations for the Schedule to the Heritage Overlay (Clause 43.01) in the Greater Bendigo Planning Scheme:

External Paint Colours Is a permit required to paint an already painted surface?	NO
Internal Alteration Controls Is a permit required for internal alterations?	NO
Tree Controls Is a permit required to remove a tree?	NO
Victorian Heritage Register Is the place included on the Victorian Heritage Register?	NO
Outbuildings and fences exemptions Are there outbuildings and fences which are not exempt from notice and review?	NO
Prohibited uses may be permitted Can a permit be granted to use the place for a use which would otherwise be prohibited?	NO
Aboriginal Heritage Place Is the place an Aboriginal heritage place which is subject to the requirements of the Aboriginal Heritage Act 2006?	NO

4.5.8 Map



4.5.9 References

- *Eaglehawk and Bendigo Heritage Study*, 1993, Graeme Butler & Assoc.
- *Former Shire of Marong Heritage Studies*, 1994 and 1999, Andrew Ward & Assoc; and reviewed by the *Heritage Policy Citations Review*, 2011, Lovell Chen
- *Former Shires of Mclvor and Strathfieldsaye, Heathcote-Strathfieldsaye Heritage Study: Stage 1*, 2002, Earthtech
- *Former Shires of Mclvor and Strathfieldsaye Heritage Study: Stage 2*, 2010, Context Pty Ltd.
- *Ironbark Heritage Study*, 2011, Mandy Jean
- *Greater Bendigo Thematic Environmental History, Overview Report and Aboriginal History*, Lovell Chen, 2013
- *White Hills and East Bendigo Heritage Study Stage 1, Bendigo Hospital Area*, 2014, Lovell Chen
- *White Hills and East Bendigo Heritage Study Stage 2, Ascot, Bendigo, East and North Bendigo Epsom and White Hills*, 2016, 2 vols, Context Pty Ltd
- *The Miners' Cottage Gap Study*, 2017/18, Minerva Heritage
- *Golden Square Heritage Study Stage 1 Chronological and Thematic History*, 2019, Dr. Robyn Ballinger
- *City of Greater Bendigo Heritage Gap Analysis*, 2019 Landmark Heritage Pty Ltd with David Helms
- *Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing*, 2020, Amanda Jean and Charles Fahey

4.6 Quartz Reefers' Houses

Prepared by: Trethowan Architecture

Address

83 Adam St, Quarry Hill; 64 Breen St, Quarry Hill; 245 Eaglehawk Rd, Long Gully; 100 Holmes Rd, North Bendigo; 15 Joseph St, Bendigo; 118 Macdougall Rd, Golden Gully, 12 Mackenzie St West.

Name: Quartz Reefers' Houses	Survey Date: March 2021
Place Type: Residential	Architects: unknown
Grading: Significant	Builders: unknown
Extent of Overlay: See precinct map	Construction Range: 1850-1900



4.6.1 Historical Context

The following historical background is extracted and adapted from *Ironbark Heritage Study* (2010) Volume 1 and the *Evolution of Housing on the Bendigo Goldfields* (2020).

The Bendigo Goldfields

The majority of the Bendigo goldfields evolved geologically in the 38 north-south anticline lines of reef that lay from Bendigo East to Kangaroo Flat. Gullies and dry creeks cut across the ridges in a west to easterly direction, flowing into the Bendigo Creek, which flows across the gravel plains of Epsom, a former shallow sea in the north, and thence into the Campaspe River, a tributary of the Murray River. The area was covered by dense Box-Ironbark forests and woodlands and was the traditional lands of the indigenous Dja Dja Wurrung people who had managed the lands according to traditional knowledge and culture for many thousands of years. Following the annexation of the

land by the British Crown, the Crown granted a pastoral lease for grazing stock to pastoralists Stewart and Gibson in 1848.³⁷ Following the discovery of gold in the area in 1851, thousands of gold diggers rushed to the area from all corners of the world. The Government managed access to land by these new kinds of colonists through the issue of mining leases. Mining leases, pastoral leases and Indigenous native title rights are now acknowledged to co-exist over Crown Land, but at the time the Indigenous Australians were pushed to the margins of society and their rights were not recognised.

The Bendigo gold fields, commenced in 1851, continued over the next 153 years through times of boom, decline, revival and stagnation. The last underground historic mine closed in 1954 with continued production locally. The Bendigo Goldfields is Australia's second largest in terms of historical production after Western Australia's Golden Mile (Boulder, Kalgoorlie).³⁸ It produced the largest amount of gold of any field in Eastern Australia and retains the largest evidence of its mining past within the inner city area. The history of mining shaped and created Bendigo. It left a chaotic industrial landscape which was in a state of perpetual flux with seemingly random, scattered, small and often very isolated settlements of people across a wide area.³⁹

In 1854 the character of the city of Bendigo (Sandhurst) changed from a collection of irregular diggings on Crown Land to a central town when the area that is now central Bendigo was surveyed by government surveyor, Richard Larritt. A government camp was established and the geometric grid layout of the town was laid out, streets surveyed and land auctioned for sale under Torrens Title. The primary factor governing settlement in the broader area, however, was mining. It was to the outer gullies and creeks within the watershed of Bendigo Creek where the alluvial miners first worked.⁴⁰ By mid 1852 more than 4,000 diggers were arriving each week, until over 40,000 miners had arrived in the space of a few years. Tent settlements were established in 1851-2 by 'diggers' intent on finding the available alluvial gold.⁴¹ By 1861 the entire Sandhurst mining district had 41,000 people spread through a score of small mining settlements. But the majority of the goldfields remained temporary and transitional in nature with haphazard settlements and roads. Other times, lack of water drove the miners on, leaving behind Crown Land that had been dug up, trees cleared, dry gullies clogged up and a wasteland created.⁴² It left a legacy of large tracts of Crown Land former mine sites that encircle the city and penetrate deep within it. It is these Crown Lands and National parks in which the Dja Dja Wurrung native title interests are now recognized.

By the end of 1850s miners were experimenting with steam powered mills as well as crushers and open cut mining. More extensively than elsewhere, Bendigo miners used puddling machines. By mid 1854 there were 1,500 machines. Attention was also turning to the mining of quartz reefs and steam powered machinery for mining was being set up as early as 1855. Supporting the miners were small foundries and accompanying this phase of mining came the building of more substantial buildings. Towards the end of the 1860s the dominance of the alluvial miner was drawing to a close and by 1868 there were 4,000 alluvial miners and 3,000 quartz reef miners in Bendigo. The success of the deep shafts had grown on Hustlers Reef and Victoria Reef with associated small crushing works. The reef miners turned to steam driven crushing machines, larger mining companies were employing bigger work forces.

In the early 1860s Bendigo's mining boom was marked by the formation of hundreds of companies. As technology and mine administration improved, so did the confidence of investors. Larger steam plants and winding engines were installed so the mines could be worked at greater depth and also control ground water inflow. Another mining boom was in full swing in 1871 and boosted the establishment of foundries and engineering works. In a two-year period, over one thousand new mining companies were floated with thousands of small mining leases. A frenzy of buying and selling shares occurred at the Beehive Mining Exchange. The boom soon burst, but some mines continued to operate by digging deeper into the reefs. In the early 1870s companies built up a paid work force and mining became the staple form of male employment in Bendigo. With capitalized works, the floating population of diggers diminished. Company mining altered the social structure

³⁷ Ravenswood Homestead, Heritage Victoria, <http://vhd.heritage.vic.gov.au/places/heritage/967>

³⁸ Bendigo Mining for a summary of the history of mining to the present see website for Bendigo Mining http://www.bmnl.com.au/safety_environment/community_relations/gold_mining/bendigo_goldfield_history.htm

³⁹ Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History 1993

⁴⁰ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

⁴¹ Ballinger, Robyn, *Ironbark Hill Precinct Report*, City of Greater Bendigo, October 2005

⁴² Ibid

of Bendigo. It established a new class of investors. Mining had created distinctly working class areas in town that housed the waged miners, which was separated from the wealthy socially as well as geographically.⁴³

The boom of the late 1860s and early 1870s was over by 1873 but until the early 1890s mining remained central to the Bendigo economy. The town was untidy, disordered, brash and with conflicting land uses right in the heart of the city.⁴⁴ The early ethnic mining groups were overlaid by new social divisions of wealth and power.⁴⁵ A wider range of housing appeared during the 1870-80s. On some hills an elite suburbia emerged. The pattern of segregation was often a product of topography, between high and low land. The elite found on hill tops and the cottages in low lying gullies. Public streets were planted with trees. There were a few well known mine investors and owners, who built alongside their mines such as Lazarus and Lansell.

At the beginning of the 20th century mines were still a major employer in Bendigo but the self-image of Bendigo was changing to one of a garden city with a fine climate.⁴⁶ By the 1890s architects who had reaped lucrative public contracts in the 1870s and 1880s turned to working for private clients bringing their own international style to Bendigo.

Mining declined from the early years of the twentieth century. In 1917 the majority of surviving mines were amalgamated with operations ceasing in 1923. Gold mining revived in 1930s when as many as 1,500 men worked in the alluvial mining and cyaniding. The old tailings and battery sands were re-worked by about thirty cyanide plants, employing 300 men.⁴⁷ Bendigo Mines Ltd began an extensive mining program on the Nell Gwynne, Napoleon and Carshalton lines of reef. Mines such as Royal George, Moonta and Central Nell Gwynne operated throughout this period but with little success. In contrast, the Central Deborah Mine started production in 1939 and continued until 1954.⁴⁸

Miners Residence Areas

All miners who built their homes on mining land were holders of a Miner's Right. This right entitled them to take out a lease for a Residence Area on mining land and build a home. The Miner's Right was an exclusive right that authorized certain rights and privileges and entitlements of the holder in the 'waste land' over which the British Crown claimed ownership. The Miner's Right only applied to auriferous land or 'waste land' that had been reserved by the British Crown as public land for its potential to yield gold. The holder of a Miner's Right did not need to be an applicant or holder of a lease for a mining tenement, that is, be an owner of a license for gold mining production. The Miner's Right was unique in the world. The miner's right of the Californian goldfields was not a legal document such as this.

All miners' houses were built by holders of a Miner's Right on auriferous land, that is land that was reserved as goldfields' commons by the colonial government to protect the economic resources of the Crown. Gold belonged to the Crown. The goldfields' commons introduced an ancient land management system from England. Bendigo had the largest goldfields commons in Victoria, covering 318.569 square kilometres that was potentially available for housing.

There were other types of commons such as town commons and farmer's commons among others. The goldfields' commons were specifically located on auriferous land and were controlled by the Courts of Mines and Warden's Courts (and after 1898 by the Department of Mines), that sat in each of the six or eight declared mining district jurisdictions. The Mine Wardens and Mining Board members were elected by the miners from the Bendigo Mining district. They judicated over the series of Mines and Residence Area Acts according to local circumstances and conditions.

These auriferous lands served to accommodate thousands of newly arrived migrant miners and their families during the 1870s quartz boom outside township surveyed areas.

The management of the Mines and Residence Area Acts did not extend to investment into public health, sanitation, rehabilitation of contaminated mines sites or road services. The mining areas

⁴³ Butler, et al, Eaglehawk and Bendigo Heritage Study, Vol 2, Thematic History

⁴⁴ Ibid p 30

⁴⁵ Ibid p. 34

⁴⁶ Ibid p.48

⁴⁷ Cusack, F. *Bendigo a history*, revised edition, 2002, Lerk & McClure, 2002, p.244

⁴⁸ Eaglehawk and Bendigo Heritage Study Significant Mining Areas and Sites Repo, Vol 3 pp.123-235

were outside the jurisdiction of local municipal and borough councils. Closure of the gold mines meant the land was abandoned and became waste lands. Many miners relocated their houses elsewhere.

The opening up of licenses on auriferous lands through the 1890s Mines Act allowed other industries to operate on Crown Land, near an available work force that was housed under the Miner's Right license. The Warden's Courts encouraged the purchase and conversion of Residence Areas to freehold title since the 1856 Mines Act, but particularly after the Mines Act 1892. Disposal of land for private sale was sporadic, unregulated and haphazard. It meant irregular shaped freehold titles were located in the midst of mining areas, often for over a century. The lots remained un-serviced and without formal roads until gradually incremental infill development and land sales transformed some areas during the 20th and 21st centuries.

4.6.2 History of Quartz Reefers' Houses

The colonial regency styled 19th century miners' houses built by aspiring speculators and mine owners, the first mining tenement leasee, is a characteristic of the greater Bendigo area. Many of these reefers and investors built their homes near their mining tenements and mines. They took advantage of the Mines Act 1865 to convert their Miner's Rights into freehold properties. Their homes were usually built of brick or stone and are spread across the quartz mining district. The first mining tenement leasee is a most interesting feature of the Greater Bendigo goldfields. Their houses usually became the centre of smaller concentrations of miners' houses, like small settlements they grouped around the mine owner's homes, mining plant – head frames, engine houses and battery houses. The dispersed nature of the industry encouraged scattered clusters of this type of unit across the mining lands.

After mining ceased or was abandoned, the environs of the small mining communities usually became the site of noxious industries, decaying machinery, open shafts, contaminated dust blown mullock heaps and tailings. Many working miners relocated their houses, while in contrast some of the mine owners retained their homes, which slowly lost rateable value. Sometimes they became surrounded by abandoned mining land, wasteland, that became overgrown.

Quartz reefers' houses remained in isolated pockets, often in landscapes that were rehabilitated during the mid 20th century when former mining land was reclaimed for state social housing programs. A fine example is the house of Robert Lisle, a substantial house built by an early quartz reefer. In 1864 Lisle, whose house is located at 44 Belle Vue Road (HO431) was listed on the Sandhurst rate books as the rate payer of the Union Company's properties at Sheepshead Gully.

Development of these houses on Crown land emerged under an unprecedented colonial gold mining licence system and the development of Victorian mining law, which spread throughout Australia and the British colonies. In conjunction with the Miner's Rights, Residency Areas and Mines Acts of 1855 to 1910 the development of judicature in Australian and mining legislation was unique in the world. It influenced the mining landscape of Greater Bendigo, mining work practices and introduced the possibility of small scale, private mining operations and housing on Crown Land.

The grander, more decorative houses associated with the Quartz Reefers's typology are associated with numerous quartz mining areas across the city. In general terms Quartz Reefer houses are:

- Associated with the Miner's Rights 1855, and Mines Act 1865
- Demonstrative of the characteristic of greater Bendigo and the reefers, investors and more successful miners who built their homes near their mining tenements and mines across the quartz mining district and were able to convert their leases into freehold

4.6.3 Description and Integrity

Built form – Quartz Reefers' Houses

These houses could be small or large but tend to be grander in style and more decorative. In scale and decoration they stand out from the more common small scale, modest and simple miners cottages. They commonly could include Colonial regency style characteristics, encircling

verandahs, be well articulated or architecturally designed. Comprised of brick or stone, they commonly have more complex roof forms and could be built in well defined phases concurrent with the growth in wealth of the owners. The houses at 83 Adam Street, 118 Macdougall Road and 12 Mackenzie St West are built of stone, with quoining to doors and windows and corner walls. The house at 245 Eaglehawk Road, Long Gully is a high set stone and brick Colonial Revival style house with grand central entry stair. The chimneys at 83 Adam Street, and 64 Breen Street are polychrome brick with corbelled crowns. The houses at 64 Breen Street, 100 Holms Rd and 15 Joseph Street are polychrome brick. The chimneys at 15 Joseph Street are Italianate brick and render. All the houses have front verandahs with ornate detailing, in iron or timber.



83 Adam St, Quarry Hill. Source: Trethowan Architecture.



Figure 28. 245 Eaglehawk Road, Long Gully. Source: Trethowan Architecture.



12 Mackenzie St West. Source: Trethowan Architecture.



15 Joseph St, Bendigo. Source: Trethowan Architecture.

4.6.4 Comparative Analysis

The houses can be compared to other stone and brick houses with quoin detailing and elaborate polychrome or brick and render chimneys, decorative gables and verandahs on the City of Greater Bendigo Heritage Overlay. Known mine owner or mining company houses include individually significant houses such as the house at 44 Bellevue Road, which is a Colonial Revival style brick and render house with Italianate chimneys and distinctive iron verandah. The subject properties compare favourably with other stone and brick houses within precincts. The house at 7 Bannerman Street for example is rendered brick and is graded contributory within HO841. It has an interwar porch added and a side addition, but still demonstrated the miners cottage form and scale, with more Colonial Revival massing and windows. The stone house at 257 Eaglehawk Road (HO542) is individually significant but is in a ruinous state. Of double-fronted, rubble stone construction, this house has dressed corner stones, a simple hipped corrugated iron-clad roof, two symmetrically-placed corniced chimneys and a concave-roof verandah. The verandah (ruinous) structure is timber, with corniced stop-chamfered posts, a simple timber fascia and remnant timber balustrading. The houses at 84 Adam St, 118 Macdougall Rd and 12 Mackenzie Street demonstrate similar attention to corner detailing, with the former two also demonstrating the use of stone. The house at 237 Eaglehawk Road (HO541) is individually significant and combines stone and brick, with a high set Colonial Revival style with tall hipped roof, central staircase and two chimneys. It is

comparable in terms of form, grand entry stair and setting to 245 Eaglehawk Road, though larger in scale with more elaborate detailing. The house at 79 Eaglehawk Road (HO488) is comparable in terms of scale and quoined brickwork to 64 Breen Street, but has an original concave verandah with iron lacework. In terms of quality and scale the subject houses clearly sit above the contributory graded houses such as 7 Bannerman Street typically found in precincts, and more comparable in some elements of form, materiality or detailing to these individually significant places.



Figure 29. 7 Bannerman Street, Bendigo. Source: City of Greater Bendigo.



Figure 30. 79 Eaglehawk Road, Bendigo. Source: Heritage Victoria.



Figure 31. 257 Eaglehawk Road, Bendigo. Source: Trethowan Architecture.



Figure 32. 237 Eaglehawk Road, Bendigo. Source: Heritage Victoria.

4.6.5 Assessment Against Criteria

Criteria referred to in Planning Practice Note 1: Applying the Heritage Overlay, Department of Environment, Land, Water and Planning, revised August 2018, modified for the local context.

Criterion A: Importance to the course or pattern of the City of Greater Bendigo's cultural or natural history (historical significance)

The colonial regency styled 19th century miners' houses built by aspiring speculators and quartz reefers have historic significance as they are associated with the first mining tenement leases. It is a characteristic of the greater Bendigo area that many of these reefers and investors built their homes near their mining tenements and mines. They took advantage of the Mines Act 1865 to convert their Miner's Rights into freehold properties. Their homes were usually built of brick or stone and are spread across the quartz mining district, while later houses might be built in polychrome brick, with Italianate or Victorian Boom style elements expressive of the relative prosperity of the occupants. The mine owners' or speculators' houses on former mines lands in the Bendigo area are historically significant as a record of the many mine owners that contributed to the wealth and reputation of Bendigo as the leading deep quartz mining area in Australia during the 19th century.

Criterion B: Possession of uncommon, rare, or endangered aspects of the City of Greater Bendigo's cultural or natural history (rarity).

N/A

Criterion C: Potential to yield information that will contribute to an understanding of the City of Greater Bendigo's cultural or natural history (research potential).

N/A

Criterion D: Importance in demonstrating the principal characteristics of a class of cultural or natural places or environments (representativeness).

The mine owners' or speculators' houses on former mines lands in the Bendigo area are an excellent representative example of one of the many different types of miners' houses. The mine owners' or speculators' houses are representative of a particular mining structure in the Bendigo goldfields. They demonstrate a way of life, where design, fabric and decorative embellishments reflected the evolving status of the owners.

Criterion E: Importance in exhibiting particular aesthetic characteristics (aesthetic significance).

They have aesthetic significance as they illustrate the rich diversity of housing types of the Victorian 19th century goldfields. They have high aesthetically significance as a special type of housing that can be found on former mine land that is associated with the early conversion to freehold title under the 1865 Mines Act. Examples of these 19th century houses can date from the late 1850s to the 1900. They are marked by their difference from other miners' houses with regard to scale, grander, or architect designs. Other homes are associated with wealthy early speculators who were often the original mining leases of mining tenements. Later they became successful miners, who purchased and built on their original mining leases. The mining tenements are usually small scale and located on the outskirts of Bendigo.

Early quartz reefers' houses are usually small in scale, brick or stone construction, often well-articulated in form, with large hip roofs and sweeping encircling verandahs. The siting of these houses is orientated towards the associated mining operations and mine sites and not the road. Later houses may be built in stone or bichrome brick, with Colonial Revival, Italianate or Victorian Boom style elements. Such early quartz reefers' houses are usually small in scale, brick or stone construction, often well-articulated in form, with large hip roofs and sweeping encircling verandahs. The siting of these houses is orientated towards the associated mining operations and mine sites and not the road.

Criterion F: Importance in demonstrating a high degree of creative or technical achievement at a particular period (technical significance).

N/A

Criterion G: Strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons. This includes the significance of a place to Indigenous peoples as part of their continuing and developing cultural traditions (social significance).

N/A

Criterion H: Special association with the life or works of a person, or group of persons, of importance in the City of Greater Bendigo's history (associative significance).

N/A

4.6.6 Statement of Significance

What is significant?

The substantial 19th century houses associated with the more prosperous miners or mine owners and speculators on mining Residency Areas, are significant.

Mature exotic trees contribute to the setting of the place at 12 Mackenzie Street West.

Original nineteenth century attached, or detached outbuildings may contribute to the historical significance of the place.

Post-war alterations and additions are not significant.

How is it Significant?

The collection of quartz reefer and mine speculators houses have historic and aesthetic significance and representative heritage value to the City of Bendigo. (Criteria A, D and E).

Why is it Significant?

The houses built by aspiring mine speculators and quartz reefers houses have historic significance as they are associated with the first mining tenement leases. It is a characteristic of the greater Bendigo area that many of these reefers and investors built their homes near their mining tenements and mines. They took advantage of the Mines Act 1865 to convert their Miner's Rights into freehold properties. Their homes were usually built of brick or stone and are spread across the quartz mining district. The mine owners' or speculators' houses on former mines lands in the Bendigo area are historically significant as a record of the many mine owners or speculators that contributed to the wealth and reputation of Bendigo as the leading deep quartz mining area in Australia during the 19th century. (Criterion A)

The mine owners' or speculators' houses on former mines lands in the Bendigo area are an excellent representative example of one of the many different types of miners' houses. The mine owners' or speculators' houses are representative of a particular mining structure in the Bendigo goldfields. They demonstrate a way of life, where design, fabric and decorative embellishments reflected the evolving status of the owners. (Criterion D)

They have aesthetic significance as they illustrate the rich diversity of housing types of the Victorian 19th century goldfields. They have high aesthetically significance as a special type of housing that can be found on former mine land that is associated with the early conversion to freehold title under the 1865 Mines Act. Examples of these 19th century houses can date from the late 1850s to the 1900. They are marked by their difference from other miners' houses with regard to scale, grander, and architect designs. Other homes are associated with wealthy early speculators who were often the original mining leases of mining tenements. Later they became successful mine owners, who purchased and built on their original mining leases. The mining tenements are usually small scale and located on the outskirts of Bendigo.

They have high aesthetic significance as early examples of miners' houses often designed in the Colonial Regency architectural style or later Victorian Boom style. Early quartz reefers' houses are usually small in scale, brick or stone construction, often well-articulated in form, with large hip roofs and sweeping encircling verandahs. The siting of these houses is orientated towards the associated mining operations and mine sites and not the road. Later houses may be built in polychrome brick, with Italianate or Victorian Boom style elements. (Criterion E)

4.6.7 Gradings and Recommendations

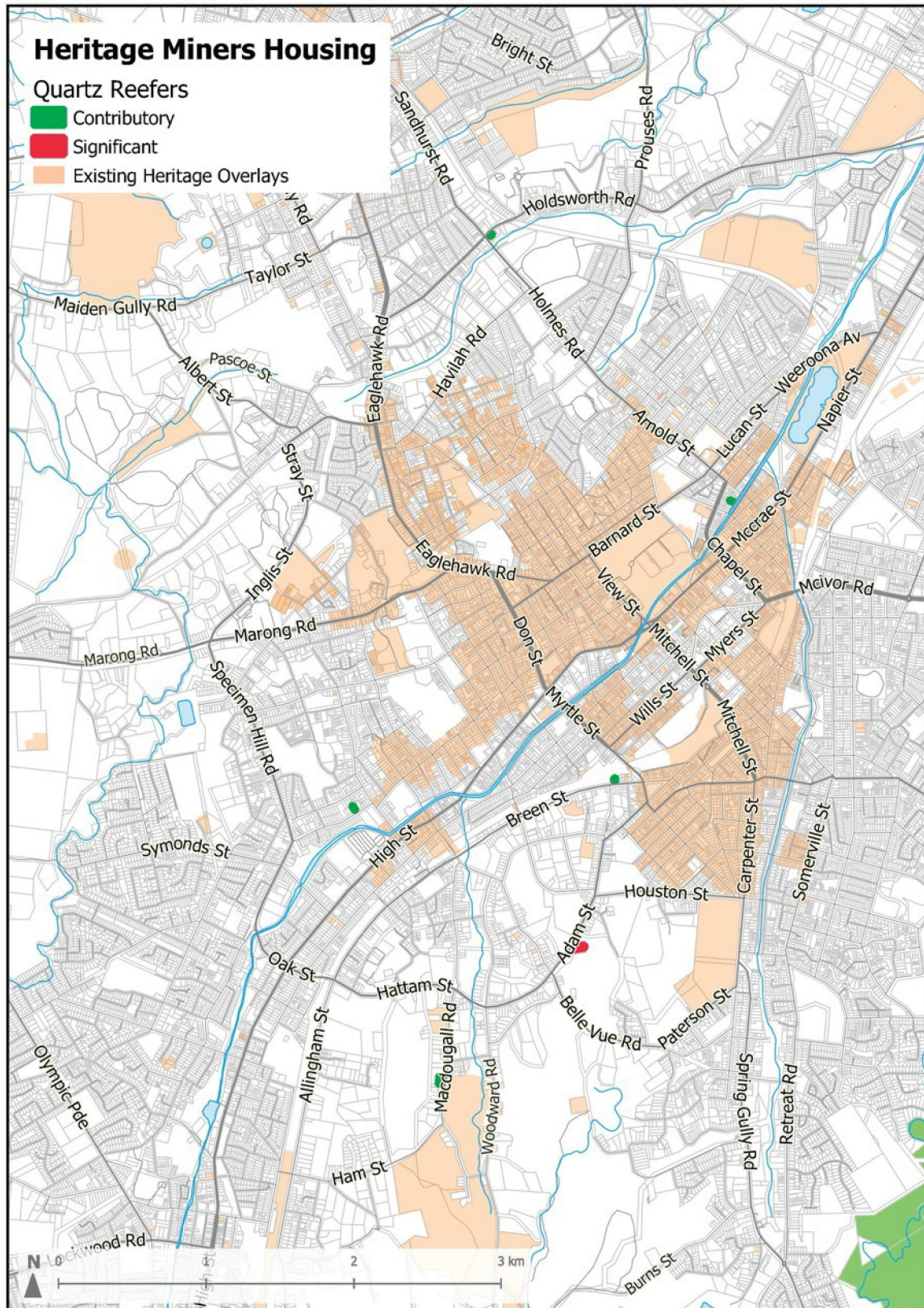
Recommended for inclusion in the Schedule to the Heritage Overlay of the Greater Bendigo Planning Scheme as a serial listing.

Number	Street	Suburb	Grading
83	Adam St	Quarry Hill	Significant
64	Breen St	Quarry Hill	Contributory
245	Eaglehawk Road	Long Gully	Contributory
100	Holmes Rd	North Bendigo	Contributory
15	Joseph St	Bendigo	Contributory
118	Macdougall Rd	Golden Gully	Contributory
12	Mackenzie St West	Golden Square	Contributory

Recommendations for the Schedule to the Heritage Overlay (Clause 43.01) in the Greater Bendigo Planning Scheme:

External Paint Colours Is a permit required to paint an already painted surface?	NO
Internal Alteration Controls Is a permit required for internal alterations?	NO
Tree Controls Is a permit required to remove a tree?	YES – Mature exotics at 12 Mackenzie Street W.
Victorian Heritage Register Is the place included on the Victorian Heritage Register?	NO
Outbuildings and fences exemptions Are there outbuildings and fences which are not exempt from notice and review?	NO
Prohibited uses may be permitted Can a permit be granted to use the place for a use which would otherwise be prohibited?	NO
Aboriginal Heritage Place Is the place an Aboriginal heritage place which is subject to the requirements of the Aboriginal Heritage Act 2006?	NO

4.6.8 Map



4.6.9 References

- *Eaglehawk and Bendigo Heritage Study*, 1993, Graeme Butler & Assoc.
- *Former Shire of Marong Heritage Studies*, 1994 and 1999, Andrew Ward & Assoc; and reviewed by the *Heritage Policy Citations Review*, 2011, Lovell Chen
- *Former Shires of Mclvor and Strathfieldsaye, Heathcote-Strathfieldsaye Heritage Study: Stage 1*, 2002, Earthtech
- *Former Shires of Mclvor and Strathfieldsaye Heritage Study: Stage 2*, 2010, Context Pty Ltd.
- *Ironbark Heritage Study*, 2011, Mandy Jean
- *Greater Bendigo Thematic Environmental History, Overview Report and Aboriginal History*, 2013, Lovell Chen
- *White Hills and East Bendigo Heritage Study Stage 1, Bendigo Hospital Area*, 2014, Lovell Chen
- *White Hills and East Bendigo Heritage Study Stage 2, Ascot, Bendigo, East and North Bendigo Epsom and White Hills*, 2016, 2 vols, Context Pty Ltd
- *The Miners' Cottage Gap Study*, 2017/18, Minerva Heritage
- *Golden Square Heritage Study Stage 1 Chronological and Thematic History*, 2019, Dr. Robyn Ballinger
- *City of Greater Bendigo Heritage Gap Analysis*, 2019 Landmark Heritage Pty Ltd with David Helms
- *Evolution of Housing on the Bendigo Goldfields: A Case for Serial Listing*, 2020, Amanda Jean and Charles Fahey

Appendix A Summary of Contributory and Significant Graded Properties
