- *Access to the site be provided via a service road arrangement to and from the Western Highway, or if not possible then using Brewery Tap Road. Orchard Lane should remain a local access laneway and no direct road access to the site should be provided from Orchard Lane. Kokoda Street should also not be used for access to the site.*
- *The intersection of Brewery Tap Road and Western Highway requires complicated turning movements across multiple lanes of traffic, and the assessment of future developments prior to highway upgrade will require careful consideration of whether this intersection can safely accommodate such movements, particularly relating to heavy vehicles.*
- *Highway frontage is the primary reason for considering development in this location and so development should provide a direct, active and high quality interface with the Western Highway.*

The WHGPMP also states that the … "*Use of the land for industrial purposes, freight and logistics depots should be discouraged. These types of uses should be located in established industrial areas within Ballarat.*"

4.2. Department of Transport (Regional Roads Victoria)

The Department of Transport (Regional Roads Victoria) plan to undertake significant road works to realign the Western Highway within the Woodmans Hill Gateway Precinct. The extent of the realignment will impact on the majority of land holdings within the Precinct and as such, future land use planning must allow for a smooth and sustainable transition.

At the time of Planning Scheme Amendment C173, the amendment was referred to VicRoads (now Regional Roads Victoria). In its letter dated 23rd June 2014 (copy attached at Appendix B), VicRoads stated that it did not oppose the proposed amendment, and provided the following comment regarding access for all developments, including the Woodmans Hill Gateway Precinct:

Access

- Access to any development must be via local roads or via a service road arrangement and no direct access is permitted onto the Western Highway.

4.3. Clause 21.09-4 Summary

The Woodmans Hill Gateway Precinct Master Plan (January 2015) recognises the Woodmans Hill Gateway as one of the major entry points to the City, and highlights the opportunity to improve the entry experience, both visually and from a land use perspective.

The objectives and implementation strategies for the Woodmans Hill Precinct, as outlined in Clause 21.09-4 of the Planning Scheme are as follows:

Objective 1	*To provide a distinctive entrance to Ballarat that will enhance the image and reflect the nature, history and culture of the Municipality, including through the provision of a major entrance feature/public art element.*
Objective 2	*To achieve use and development that is respectful to the valued landscape and natural environmental elements of the area, including view lines, vegetation retention, landscaping and defined koala habitat.*

Objective 3	*To encourage high quality sustainable built form.*
Objective 4	*To achieve land use outcomes that add to the overall economic diversity of Ballarat without compromising the economic viability of Ballarat's Activity Centres, in particular the Ballarat CBD and the Ballarat West Employment Zone.*
Objective 5	*To achieve a land use mix that has a focus on highway related functions, with ancillary retail and support for existing tourism uses that capture passing economic activity that contributes to the Ballarat economy.*

Land use and development

Strategy 1	*Consider land use and development proposals generally in accordance with the Woodmans Hill Gateway Precinct Master Plan (January 2015).*
Strategy 2	*Restrict commercial use and development within the Precinct to land within the Mixed Use Zone.*
Strategy 3	*Ensure an appropriate interface/buffer between the commercial and rural, rural living and residential areas of the precinct as appropriate.*

Design

Strategy 1	*Consider the design objectives contained in the Woodmans Hill Gateway Precinct Master Plan (January 2015). Ensure redevelopment of the freeway and land abutting the freeway through Woodmans Hill incorporates design of landscape elements consistent with the vision for the entrance.*
Strategy 2	*Minimise the impact of new development on view lines, natural landscapes and landforms within the precinct.*
Strategy 3	*Discourage the proliferation of advertising signage.*
Strategy 4	*Ensure that development addresses the design principles set out in the Woodmans Hill Gateway Precinct Master Plan (January 2015).*
Strategy 5	*Ensure that the design of new development incorporates environmentally sustainable design principles.*

Clause 21.09 also makes specific reference to applications for land uses adjacent to Western Highway and requires (among other things) for applications to … *"Demonstrate that safe and appropriate access is provided, consistent with the Woodmans Hill Gateway Precinct Master Plan (January, 2015)."*

5. Traffic Considerations

5.1. Subject Site Development Potential

The subject site is currently zoned Rural Living Zone (RLZ) and is recognised in the Woodmans Hill Gateway Precinct Master Plan as a 'potential future development site'.

We understand that if the land were to be rezoned in the future to facilitate development, it is likely the land will be rezoned to Mixed Use Zone (consistent with the land to the east).

The Woodmans Hill Gateway Precinct Master Plan (January 2015) states the following with regard to the preferred land uses on the subject site:

> *Use of the land for industrial purposes, freight and logistics depots should be discouraged. These types of uses should be located in established industrial areas within Ballarat.*

The Evidence Statement prepared by Andrew Clarke of Matrix Planning Australia Pty Ltd for the subject site identifies the following discretionary uses that may apply to the potential future development sites:

- Tourism attraction uses that require a highway location to capture passing trade rather than a CBD location;
- Temporary accommodation such as hotel, motel, backpackers lodge, caravan park and conference centre;
- Car, boat, caravan and farm machinery display, hire and sales;
- Petrol station and convenience restaurant/take away food premises (perhaps as an integrated facility or stand-alone);
- Some forms of display-based retailing such as equestrian supplies;
- Garden supplies/nursery; and
- Industry with a manufacturing sales component (e.g. chocolate or lolly factory and sales).

5.2. Traffic Distribution

The majority of staff to any potential commercial use are likely to be from Ballarat and surrounds, i.e. traffic generated to/from the west of the subject site.

The configuration of the surrounding road network will also impact on the distribution of traffic accessing and leaving the site, and depending on the timing of other developments and of potential road network upgrades, may impact on what uses can be established at the site.

In particular, the following is noted:

- There is currently limited capacity for vehicles to turn right out of Brewery Tap Road into Western Highway to head towards Ballarat.
- We understand that VicRoads is not supportive of controlling the Western Highway/Brewery Tap Road intersection (via either signalisation or roundabout control) due to the desire by VicRoads to upgrade the status of Western Highway through Warrenheip to freeway status in the future.
- At such time that the highway is upgraded to a freeway, an interchange would be constructed at the Brewery Tap Road/Old Melbourne Road intersection to restore access to existing properties in the Warrenheip/Brown Hill area, including the subject site.
- The future upgrade of Western Highway to a freeway is unfunded and is likely to be at least 15 years away.
- There is scope for vehicles to turn left out of Brewery Tap Road and undertake U-turns on Western Highway via existing U-turn slots (until such time that it is upgraded to a freeway) to increase the capacity for vehicles to exit the site and head towards Ballarat.
- Brewery Tap Road is a well-constructed road in good condition with sealed shoulders on both sides. It provides a connection to Ballarat-Daylesford Road (Road Zone Category 1), which provides a convenient alternative connection back into Ballarat, particularly for those heading to the northern suburbs including Brown Hill, Ballarat North, Invermay Park, Wendouree and Mitchell Park.

Notably, in the absence of any interim upgrade of the Western Highway/Brewery Tap Road intersection, there would be limited scope to capture “passing trade” in the westbound direction (right-out movements are prohibited from Brewery Tap Road and westbound traffic would be required to undertake a U-turn at Old Melbourne Road), however uses which capitalise on the capture of passing trade in the eastbound direction only, and uses which primarily cater for customers accessing the site to/from Ballarat (predominantly accessing the site via Ballarat-Daylesford Road) could be accommodated without upgrading the Western Highway/Brewery Tap Road intersection.

5.3. Summary

Prior to upgrade of Western Highway to a freeway standard, the extent (and type) of development on the subject site will depend on the available traffic capacity.

As previously discussed, there is capacity via Brewery Tap Road to the north of the site, to Ballarat-Daylesford Road (Road Zone Category 1), which provides convenient access between the site and the Ballarat Township without relying on the Western Highway/Brewery Tap Road intersection.

The available capacity at the Western Highway/Brewery Tap Road intersection could be substantially increased if VicRoads were to agree to permit the intersection to be upgraded to a controlled intersection (signals or roundabout).

The development potential of the site could be maximised by the adoption of low traffic generating uses such as car, boat, caravan and farm machinery display, hire and sales.

Any development on the subject site that occurred prior to the upgrade of Western Highway to freeway status, could include a condition requiring a Traffic Management Plan that limits the total daily traffic generation from the Western Highway/Brewery Tap Road intersection to within acceptable limits, and encourages access to the site to be via Ballarat-Daylesford Road.

6. Access Provisions

Preliminary concept plans (3 options) have been prepared demonstrating three access options for the subject site. Access to Brewery Tap Road is located in the north-east corner of the site for each option.

Each option provides access is provided at the north-west corner of the site as follows:

- Option A – access is proposed via the Kokoda Street road reservation, before turning south to a dead-end treatment.
- Option B – the access road traverses diagonally down to the Western Highway frontage to provide a frontage road to the highway with a dead-end treatment (note: direct access to the Western Highway is not proposed).
- Option C – the access road traverses diagonally down to provide a road through the middle of the site allowing for development lots on either side of the roadway.

A copy of each of the concept plans is attached at Appendix B.

The proposed access to Brewery Tap Road at the north-east corner of the site (common to all three options) is appropriate having regard to the need to set back the access from the Western Highway reservation to allow for the future freeway interchange and flyover at Brewery Tap Road and Old Melbourne Road.

We are satisfied that any of the three access options would be appropriate. Ultimately, the internal road layout would respond to the type and layout of development that is proposed.

7. Conclusions

Having inspected the site, reviewed relevant documentation and plans and undertaken traffic engineering assessments, we are of the opinion that:

a) suitable access is available to the subject site to facilitate some development on the subject site in the short-term (prior to any upgrade of the surrounding road network),

b) the level and type of development which can be accommodated at the subject site will be dependent on a range of factors including the timing of any potential development of surrounding sites, and the timing of road upgrades,

c) significant additional development capacity could be facilitated by undertaking an interim upgrade of the Western Highway/Brewery Tap Road intersection (signals or roundabout),

d) following future rezoning of the site and in the absence of any road network upgrades, development of the site could include a Traffic Management Plan that limits the total daily traffic generation from the Western Highway/Brewery Tap Road intersection to within acceptable limits, and encourages access to the site to be via Ballarat-Daylesford Road would be appropriate (and may also restrict the type of development to uses which generate the majority of traffic to/from Ballarat and rely on minimal “passing trade” in the westbound direction),

e) there are no traffic engineering reasons why the existing Kokoda Street road reservation (or at least part of the road, extending from Brewery Tap Road but not necessarily extending to Orchard Lane) could not be constructed and utilised for access to the site, and

f) there are no traffic engineering reasons why the subject site should not be rezoned from Rural Living Zone to Mixed Use Zone.

Appendix A

Existing Conditions SIDRA

MOVEMENT SUMMARY

Site: 101 [Western Highway/Brewery Tap Road - AM Peak]

Western Highway/Brewery Tap Road
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Western Highway												
5	T1	1060	7.0	0.286	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	36	3.0	0.176	12.8	LOS B	0.6	4.4	0.68	0.88	0.68	47.3
6u	U	31	3.0	0.176	15.8	LOS C	0.6	4.4	0.68	0.88	0.68	47.1
Approach		1126	6.8	0.286	0.9	NA	0.6	4.4	0.04	0.05	0.04	59.0
North: Brewery Tap Road												
7	L2	46	3.0	0.059	10.3	LOS B	0.2	1.5	0.43	0.90	0.43	50.8
Approach		46	3.0	0.059	10.3	LOS B	0.2	1.5	0.43	0.90	0.43	50.8
West: Western Highway												
10	L2	11	3.0	0.006	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	53.5
11	T1	696	7.0	0.187	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		706	6.9	0.187	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.9
All Vehicles		1879	6.7	0.286	0.8	NA	0.6	4.4	0.03	0.06	0.03	59.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Western Highway/Brewery Tap Road - PM Peak]

Western Highway/Brewery Tap Road
Site Category: (None)
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Western Highway												
5	T1	927	7.0	0.251	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	34	3.0	0.520	31.4	LOS D	2.1	15.0	0.91	1.07	1.30	36.8
6u	U	56	3.0	0.520	39.3	LOS E	2.1	15.0	0.91	1.07	1.30	36.7
Approach		1017	6.6	0.520	3.2	NA	2.1	15.0	0.08	0.09	0.11	56.8
North: Brewery Tap Road												
7	L2	58	3.0	0.099	12.3	LOS B	0.3	2.5	0.54	0.98	0.54	49.5
Approach		58	3.0	0.099	12.3	LOS B	0.3	2.5	0.54	0.98	0.54	49.5
West: Western Highway												
10	L2	12	3.0	0.006	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	53.5
11	T1	1081	7.0	0.290	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1093	7.0	0.290	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.9
All Vehicles		2167	6.7	0.520	1.9	NA	2.1	15.0	0.05	0.07	0.07	58.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix B

VicRoads Letter dated 23rd June 2014

Western Region
88 Learmonth Road
Wendouree Victoria 3355
PO Box 580 Ballarat Victoria 3353

Telephone 13 11 71
Fax (03) 5333 8771

vicroads.vic.gov.au

Mr Deon van Baalen
Manager City Strategy
City of Ballarat
PO Box 655
BALLARAT VIC 3350

23 June 2014
Our Ref: Q.D 2550586
Your Ref: C173
File No: SY-030-BLT-001

Dear Mr Baalen

BALLARAT PLANNING SCHEME AMENDMENT C173
WOODMANS HILL GATEWAY PRECINCT MASTER PLAN

Thank you for the opportunity to comment on the above Planning Scheme Amendment C173.

Overall, VicRoads is not opposed to the proposed amendment C173 of the Ballarat Planning scheme however, the following comments should be considered prior to the approval of the amendment.

Noise Attenuation

- Please amend the wording from 'Roads Authority' to 'Roads Corporation'.
- Any development within the area needs to refer to traffic noise from the existing Western Highway as well as the ultimate proposal of the future Western Freeway.

Buildings and Works

- Please amend the third dot point within the abovementioned section to remove reference of "future alignment of the Western Freeway" and rewrite to refer to the existing RDZ1 or PAO1 (whichever is greater).

Access

- Access to any development must be via local roads or via a service road arrangement and no direct access is permitted onto the Western Highway.

Advertising signage

- Any display of an animated or electronic sign within 60 metres of RDZ1 must be to the satisfaction of the Road Corporation.

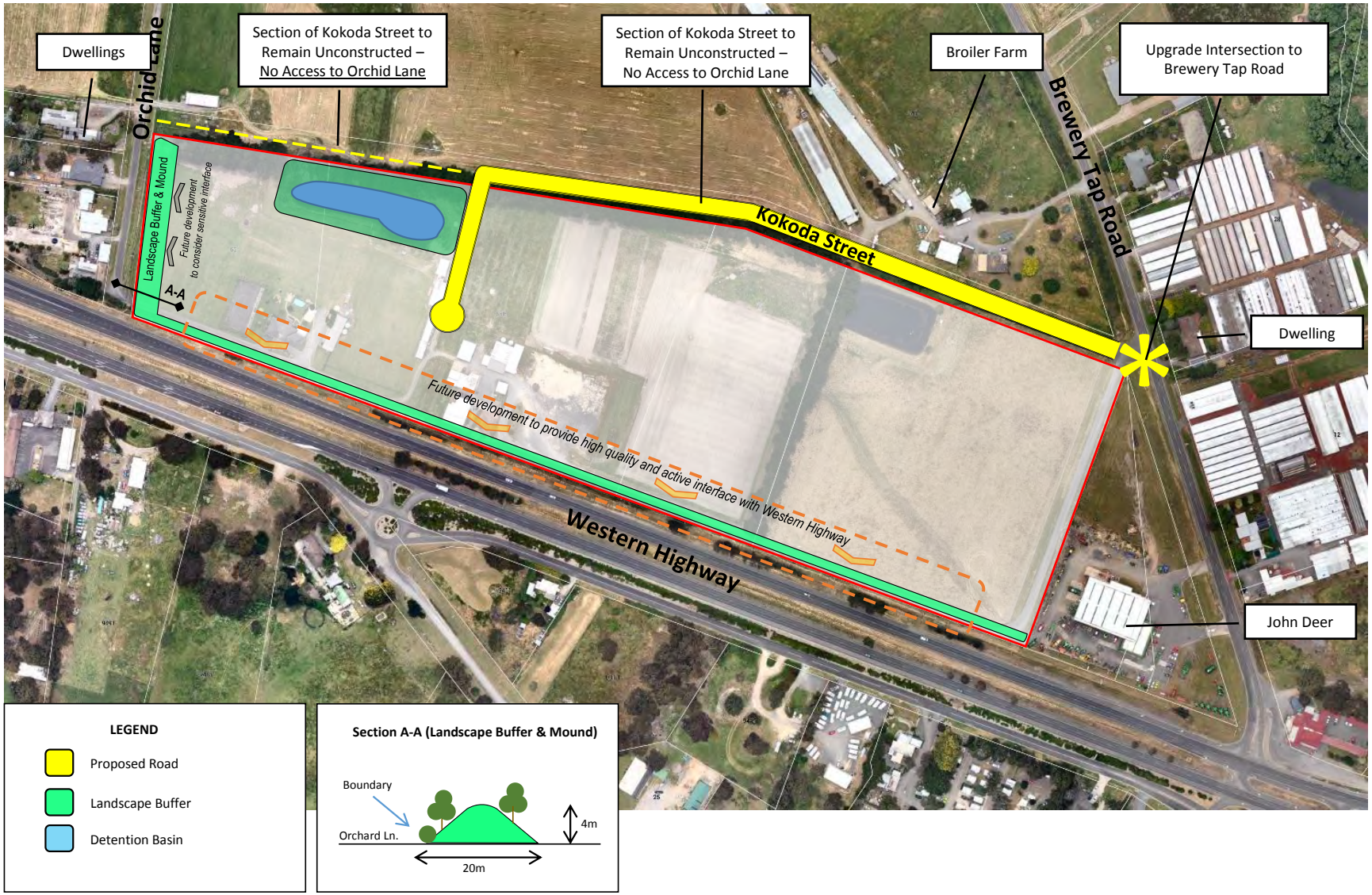
Should you wish to discuss any of the above points raised, please don't hesitate to contact Grant Deeble- Team Leader Integrated Transport and Land Use (Tel: 5333 8756) who would be pleased to assist.

Yours sincerely

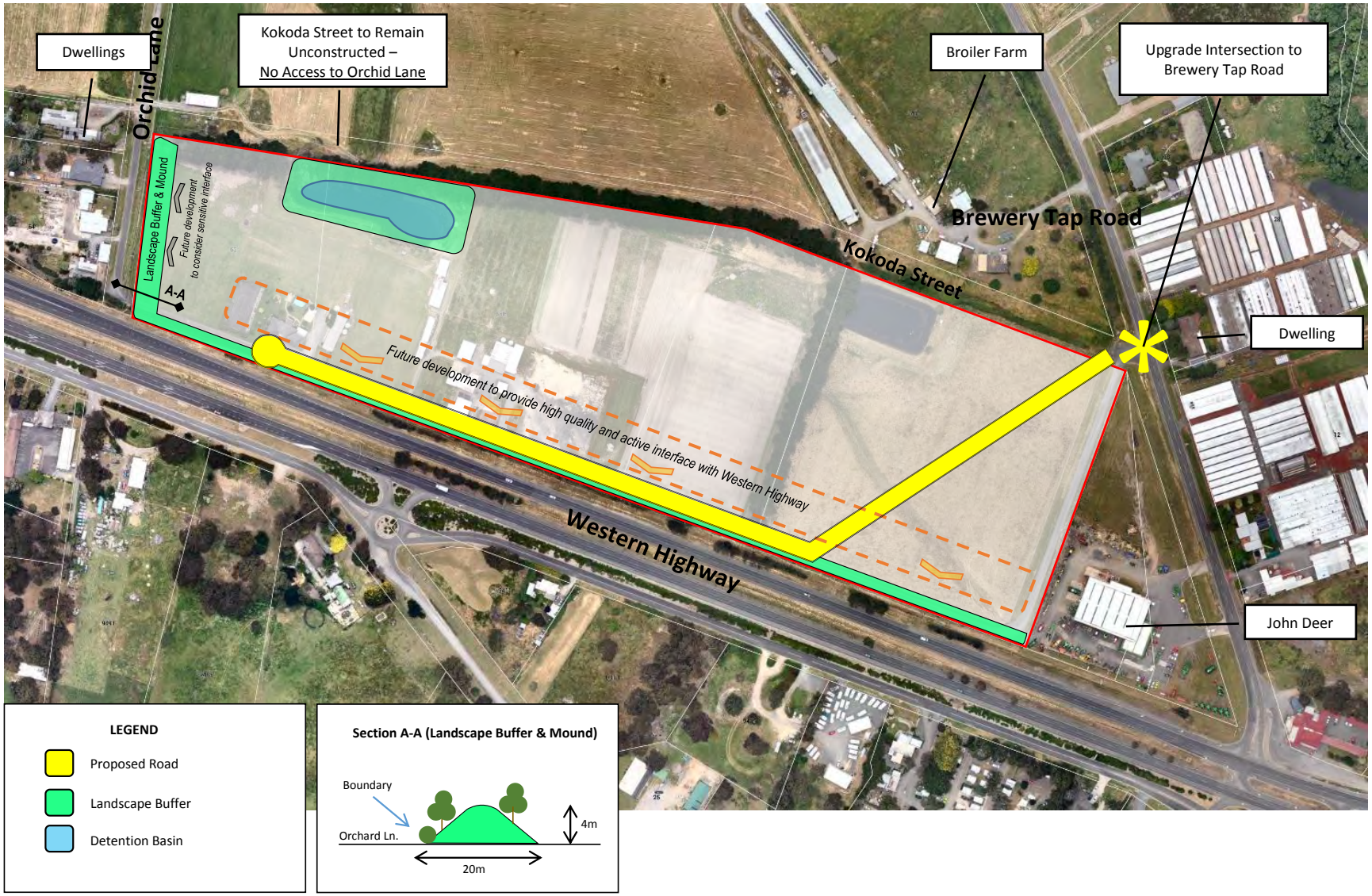
CHRIS DUNLOP
MANAGER PLANNING – WESTERN VICTORIA

Appendix C

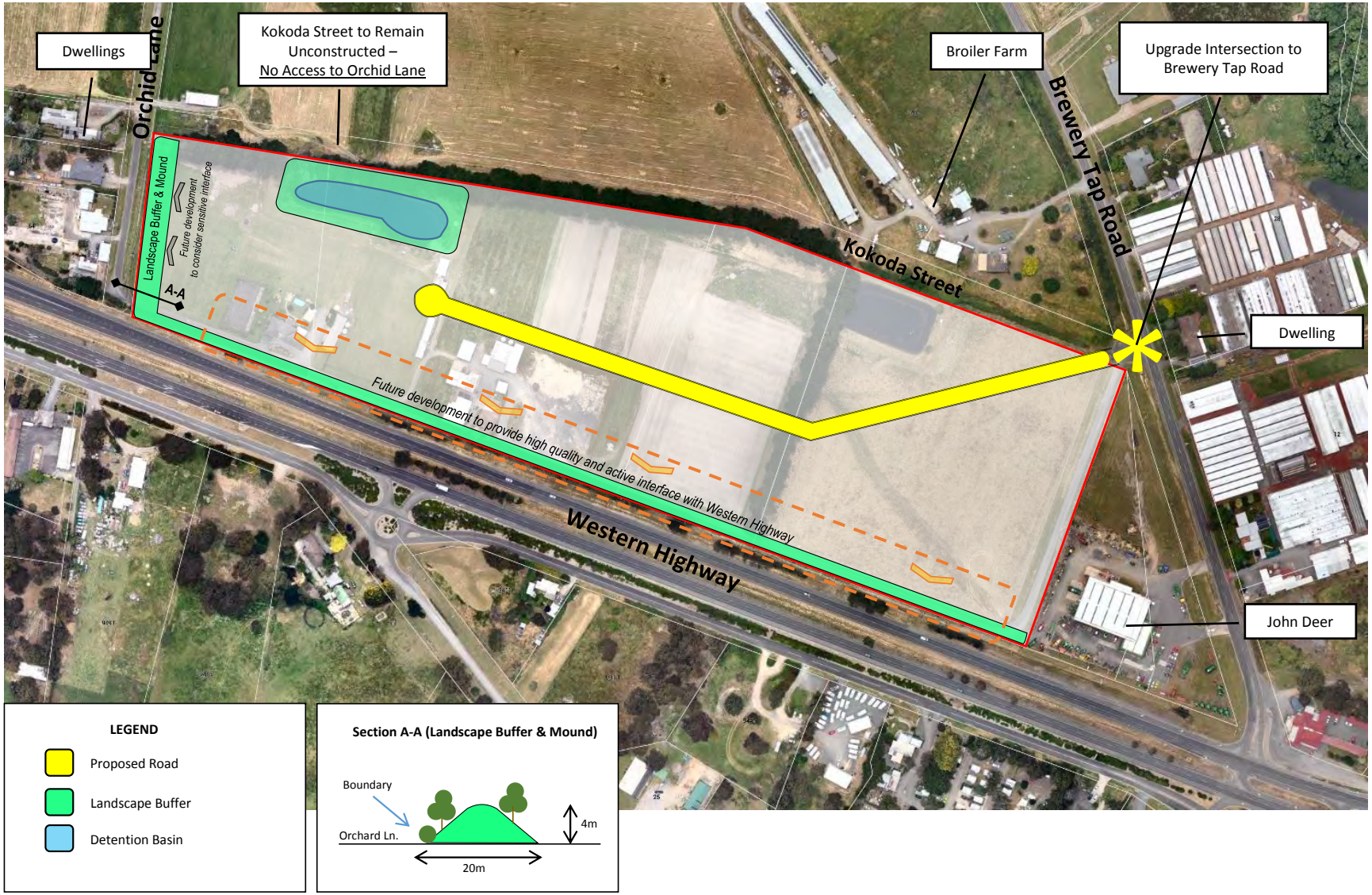
Concept Access Plans



OPTION A - Preliminary Concept Plan	Woodmans Hill



OPTION B - Preliminary Concept Plan | **Woodmans Hill**



OPTION C - Preliminary Concept Plan	Woodmans Hill

4 June 2020

Mr Mike Kaufmann
Kaufmann Property Consultants P/L
Sent via email to kpc@kaufmannpc.com.au

Dear Mike

Proposed rezoning of land from rural living zone to mixed use zone
Our ref: Matter 18927

We understand that the City of Ballarat have requested a statement regarding the currency of the Biosis Expert Witness Report (2014) regarding the proposed Planning Scheme Amendment C173. The expert witness statement was prepared by John Miller, Principal Botanist, dated 7/10/2014.

In response to your request, I have reviewed the report, and find that the contents and conclusions within the report are still relevant and current.

Please contact me if you have any enquiries.

Yours sincerely

Matthew Gibson
Senior Ecologist

Biosis Pty Ltd
Ballarat

1/22 Skipton Street
Ballarat VIC 3350

Phone: 03 5304 4250

ACN 006 175 097
ABN 65 006 175 097

Email: ballarat@biosis.com.au

biosis.com.au

Ballarat Planning Scheme Amendment C173: Great Eastern Ranges Wildlife Corridor

Expert Witness Statement

Prepared for Kaufmann Property Consultants

7 October 2014

Biosis offices

AUSTRALIAN CAPITAL TERRITORY

Canberra
Floor 1, Unit 3, 38 Essington Street
Mitchell ACT 2911

Phone: (02) 6241 2333
Fax: (03) 9646 9242
Email: canberra@biosis.com.au

NEW SOUTH WALES

Newcastle
39 Platt Street
Waratah NSW 2298

Phone: (02) 4968 4901
Email: newcastle@biosis.com.au

Sydney
Unit 14 17-27 Power Avenue
Alexandria NSW 2015

Phone: (02) 9690 2777
Fax: (02) 9690 2577
Email: sydney@biosis.com.au

Wollongong
8 Tate Street
Wollongong NSW 2500

Phone: (02) 4229 5222
Fax: (02) 4229 5500
Email: wollongong@biosis.com.au

QUEENSLAND

Brisbane
Suite 4 First Floor, 72 Wickham Street
Fortitude Valley QLD 4006

Phone: (07) 3831 7400
Fax: (07) 3831 7411
Email: brisbane@biosis.com.au

VICTORIA

Ballarat
506 Macarthur Street
Ballarat VIC 3350

Phone: (03) 5331 7000
Fax: (03) 5331 7033
Email: ballarat@biosis.com.au

Melbourne (Head Office)
38 Bertie Street
Port Melbourne VIC 3207

Phone: (03) 9646 9499
Fax: (03) 9646 9242
Email: melbourne@biosis.com.au

Wangaratta
16 Templeton Street
Wangaratta VIC 3677

Phone: (03) 5721 9453
Fax: (03) 5721 9454
Email: wangaratta@biosis.com.au

Document information

Report to:	Kaufmann Property Consultants
Prepared by:	John Miller
Biosis project no.:	18927
File name:	18927.Woodmans.Hill.EWS.JM.20141006.docx

Document control

Version	Internal reviewer	Date issued
Draft version 01	MSG	7/10/14

Contents

1. Author's Statement

This report has been prepared by John Miller, Principal Botanist, Biosis Pty Ltd, 506 Macarthur Street, Ballarat.

I am a principal botanist in the Ballarat Resource Group of Biosis. I have over 35 years experience in natural resource management, ecological consultancy and as a university lecturer. I have Bachelors and Masters Degrees in Applied Science from the University of Ballarat. I am an expert in the identification and mapping of ecological vegetation classes and in the conduct of No Net Loss and vegetation quality assessments. I am the principal author of over 350 natural resource investigation reports and numerous management plans prepared for Parks Victoria, state government agencies, Municipalities and other organisations. I have lived and worked in Ballarat for over 25 years and have extensive experience in recording and evaluating ecological issues throughout western Victoria.

Instructions

I was commissioned in September 2014 by Kaufmann Property Consultants Pty Ltd on behalf of T & K Wilson and Mahar Property Holdings Trust to provide an opinion in relation to the potential impact of the Ballarat Planning Scheme Amendment C173 on the location and function of the Great Eastern Ranges Wildlife Corridor.

Investigation

I have inspected the area north of the Western Freeway within the area described as "Potential Future Development" within the area covered by C173 and adjacent areas to the south of the Western Freeway. I have referred to aerial photographs of the area covered by C173 and I have determined the status of the Great Eastern Wildlife Corridor and how it may intersect the area covered by the C173 Amendment.

In September 2013 I was commissioned by Kaufmann Property Consultants Pty Ltd to undertake an inspection of a proposed development site on the southern end of Orchard Road, Woodman's Hill – the land referred to as "Potential Future Development" in Planning Amendment C173. My report on that investigation is attached.

The views expressed are my opinion. The factual information I believe to be correct but it should be noted that information regarding the Great Eastern ranges Wildlife Corridor has been largely gleaned from the Internet so has the potential to be out-dated.

Documents consulted were:

- Great Eastern Ranges Website: http://www.greateasternranges.org.au/about-the-corridor/ (REF 1)
- Great Eastern Ranges Brochure: https://docs.google.com/file/d/0B_Dn8rROv7NLQTdvT3pzdjVnYlk/edit?pli=1 (REF 2)
- Ballarat Planning Scheme Amendment C173.
- Biosis 2013: Proposed development on the southern end of Orchard Road, Woodman's Hill: Ecological constraints. Letter to Kaufmann Property Consultants Pty Ltd

Report prepared

I have prepared this expert witness statement in response to the request by Kaufman Property Consultants.

Conflicts of Interest

To the best of my knowledge, I have no conflicts of interests or business relationships relevant to this case.

2. Introduction

2.1 Planning Amendment C173

Planning Amendment C173 seeks to amend the Ballarat Planning Scheme in the Woodman's Hill area to guide the long-term development of the Woodmans Hill Gateway Precinct. A component of Planning Amendment C173 is the identification of an area located north of the Western Freeway between Orchard Lane and Brewery Tap Road as "Potential Future Development". The land designated as "Potential Future Development" and its impact on biodiversity and the Great Eastern Ranges corridor is the focus of my statement.

2.2 Biosis 2013 ecological constraints report

In September 2013 I was commissioned by Kaufmann Property Consultants Pty Ltd to undertake an inspection of a proposed development site on the southern end of Orchard Road, Woodman's Hill (Biosis 2013). The area of the investigation is now identified as "Potential Future Development" in Planning Amendment C173.

My conclusions from that investigation were:

- Neither Orchard Road nor Brewery Tap Road is suitable as wildlife corridors for native species.
- The proposed development is unlikely to have any impact on habitat for, or movement of, native fauna species.
- The proposed development is unlikely to have any impact ion the movement of Koalas associated with the near-by Western Freeway underpass.

My views remain as concluded in the Biosis (2013) report.

2.3 Great Eastern Ranges (GER) corridor

The following is a synopsis of the GER taken from the GER website (REF 1):

The aim of the corridor is to create and foster linkages through the landscape GER by bringing people and organisations together to protect, link and restore healthy habitats over 3,600 kilometers from Western Victoria through NSW and the ACT to far North Queensland. It is based on the principles of connectivity conservation, a relatively new strategy that focuses on creating linkages and corridors between protected areas and other core habitat areas through revegetation and protection of existing habitat. GER is a strategic response to mitigate the potential impacts of climate change, invasive species, land clearing and other environmental changes on our richest biodiversity and iconic landscapes.

GER is based on a model of partnerships with collaboration across organisational boundaries and focused on common goals. GER comprises the Central Team, GER Lead Partners, GER Regional Partnerships and over 180 organisations across the length of the corridor.

The Lead Partners are Greening Australia, National Parks Association of NSW, Nature Conservation Trust of NSW, Office of Environment & Heritage and OzGREEN.

The Victorian Partners are Trust for Nature and Parks Victoria.

The Central Victorian Biolink project is a new GER partnership to further promote and enable large-scale landscape connectivity in Central Victoria. It arose from concerns that, in spite of the work of countless people over many decades, the health of the natural environment in Central Victoria is not improving and that long-term successful conservation needs a 'whole of landscape' vision.

Alliance members include:

- *Project Platypus*
- *Wedderburn CMN*
- *Upper Campaspe Landcare Network*
- *Mid-Loddon Landcare Network*
- *Piper Biolink*
- *Strathbogie CMN*
- *Ballarat Environment Network*
- *Bendigo and Districts Environment Council*
- *Moorabool Landcare Network*
- *Wombat Forestcare*

Comment:

The GER is a concept that works in partnership with willing and interested parties and individual landholders to opportunistically create or strengthen vegetated landscape linkages within their nominated broad area. The attached map, taken from the GER website (REF 2) shows the broad location of the corridor.

As far as I can determine the GER has no legislative basis and no coercive or enforceable powers to insist that actions be undertaken or not undertaken.

2.4 Central Victorian Biolink Project

The Central Victoria biolink project is a component of, and a western extension of, the GER that seeks to create landscape linkages to the west and north of Ballarat. The corridor does not have a precise location but the concept of developing or enhancing biodiversity linkages through the landscape between larger conservation reserves is central to the project.

2.5 Friends of Canadian Corridor submission

The friends Of Canadian Corridor (FoCC) have provided a response to Amendment C173 that, in part, raises issue with the fact that Amendment 173 does not identify the Great Eastern Ranges Wildlife Corridor biolink passage through the planning area and does not acknowledging the biolink link between the Creswick Forest to the north and the Canadian Forest to the south.

The FoCC submission tacitly notes that the biolink concept between the Creswick Forest and the Canadian Forest has a significant obstacle – the Western Freeway – which cuts across the potential linkage between the two forests. The FoCC submission proposes a bridge over the freeway in an attempt to alleviate or ameliorate this issue.

3. Assessment of C173 against the aims of the Biolink

3.1 GER and Central Victoria Biolink

The concept of the biodiversity linkage over long and short distances within the landscape is ecologically sound and is likely, over time, to provide an improved means of movement for wildlife through the landscape.

It is my opinion, however, that development of the land to the immediate north of the Western Freeway in the vicinity of Orchard Lane and Brewery Tap Road would not be in conflict with the broad aims of the GER and Central Victorian Biolink.

3.2 Current land use

Currently the land within the areas designated as "Potential Future Development" in Amendment C173 is comprised of cleared paddocks supporting and dominated by introduced grasses, herbs and weeds. They do not represent habitat for any native species other than common open area wildlife such as magpies, ravens and possibly kangaroos.

The road reserves of both Orchard Lane and Brewery Tap Road do not support native vegetation and I would not currently regard them as wildlife corridors.

As a result, development of the area designated for "Potential Future Development" would not have an adverse impact on wildlife habitat or movement.

Revegetation along Orchard Lane and Brewery Tap Road may improve the local habitat for a limited number of native species but it would not make any useful contribution to the development of a biodiversity linkage as it would not link directly with any other areas that support native vegetation.

3.3 Western Freeway

The Western Freeway to the immediate south of the land designated for Potential Future Development represents a major obstacle to wildlife movement (see attached air photo). There seems little point in establishing revegetation of a biolink that dead-ends at the freeway.

3.4 Better corridor alternatives

Better alternative options for establishing a biolink between the Creswick and Canadian Forests exist (see attached air photo). Alternatives include:

- Enhancement of the existing vegetation area around the point where Victoria Street exits the freeway into Ballarat.
- Enhancement of the existing vegetation on either side of the Western Freeway westward to link up with the existing blocks of vegetation around Little Bendigo and in the vicinity of Hillcrest Road, Brown Hill.
- Enhancement and connection of patches of existing vegetation in the vicinity of Gracefield Road.

4. Conclusion

I conclude that:

- The vegetation and environment within the area designated in C173 as "Potential Future Development" is currently unsuitable as habitat for most wildlife and as a wildlife movement corridor.
- The GER and the Central Victorian Biolink would not be compromised through the development of the land designated as "Potential Future Development".
- The Western Freeway poses a major obstacle to the development of a wildlife corridor between the Creswick and Canadian forests particularly in the area adjacent to the area designated in C173 as "Potential Future Development".
- There are alternative local routes for the Central Victorian Biolink to follow that are likely to provide a better wildlife corridor outcome than running it through the area designated as "Potential Future development".

5. Author's Declaration

I have made all inquires that I believe are appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the panel.

John Miller

Principal Botanist

Biosis Pty Ltd

7 October 2014

References

Biosis 2013. Proposed development on the southern end of Orchard Road, Woodman's Hill: Ecological constraints. Author: Miller, J. Report for Kaufmann Property Consultants Pty Ltd.

REF 1GER Website: http://www.greateasternranges.org.au/about-the-corridor/

REF 2: https://docs.google.com/file/d/0B_Dn8rROv7NLQTdvT3pzdjVnYlk/edit?pli=1


THE GREAT EASTERN RANGES
connecting people...connecting nature
Where are the Great Eastern Ranges?
Wet Tropics World Heritage Area in far north Queensland
Border Ranges in SE Queensland and NE NSW
GER Corridor
Protected area
State forest
Great Escarpment
Great Dividing Range
Queensland
Hunter Valley region of NSW
New South Wales
Australian Capital Territory
Victoria
Australian Alps in ACT and across the NSW and Victoria border
Grampians National Park in western Victoria
South West Slopes of NSW
Lead Partners of the Great Eastern Ranges Initiative
Greening Australia
OzGREEN
nature conservation trust
NPA
NSW Office of Environment & Heritage
Key Supporters
Photo Credits:
Front cover: Ian Pulsford; On-ground efforts: Conservation Volunteers Australia; Research: GER; Scarlet Honeyeater: Chris Tzaros; Community engagement: Bellingen Landcare

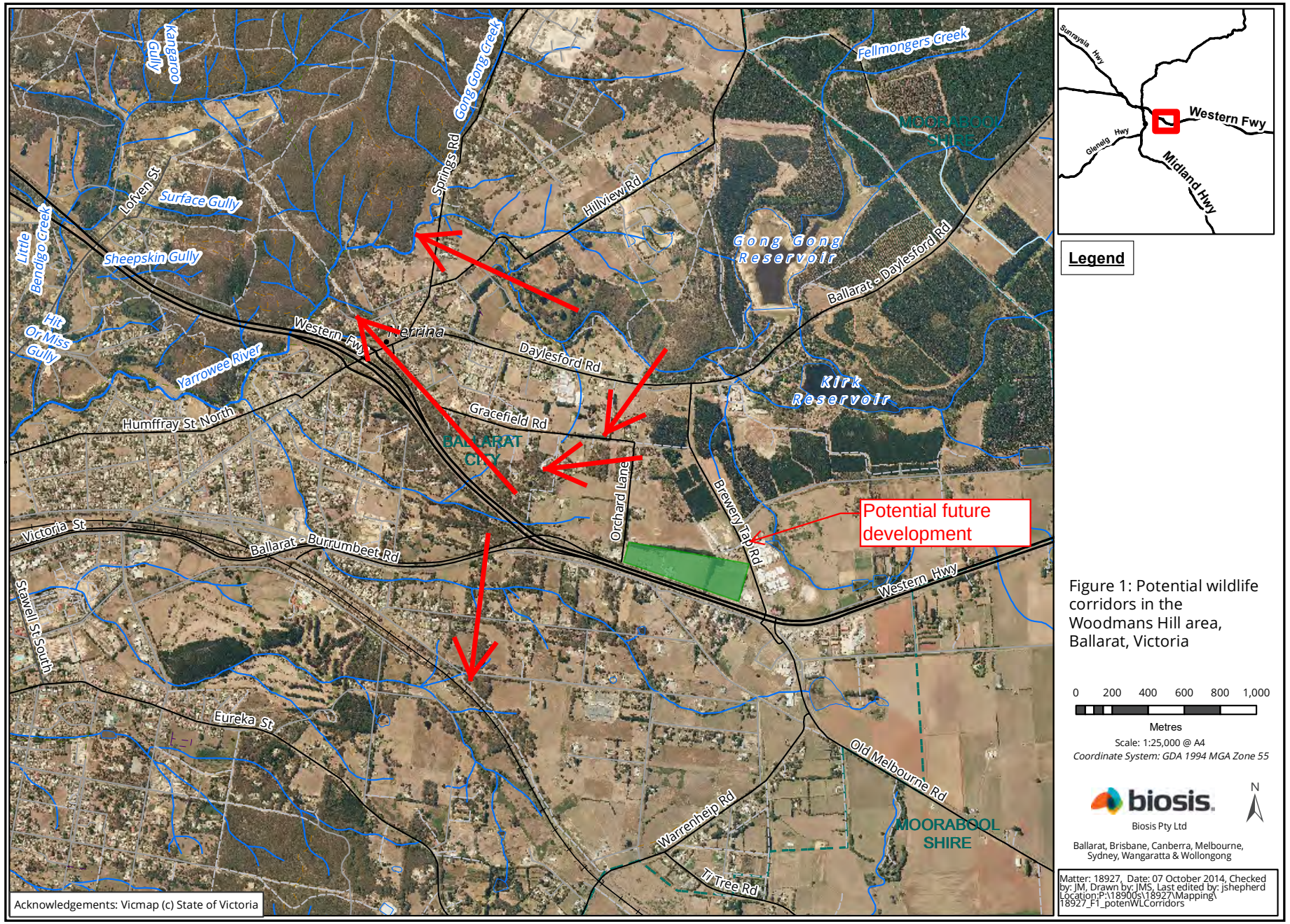


Figure 1: Potential wildlife corridors in the Woodmans Hill area, Ballarat, Victoria

3 September 2013

Mr Mike Kaufmann
Kaufmann Property Consultants Pty Ltd
Via email: kpc@kaufmannpc.com.au

Dear Mike,

Proposed development on the southern end of Orchard Road, Woodman's Hill: Ecological constraints

Our Ref: Matter 17133

Acting under instructions from Mike Kaufmann of Kaufmann Property Consultants Pty Ltd I undertook a brief inspection of a proposed development site on the southern end of Orchard Road, Woodman's Hill, Ballarat.

The proposed development site is located between Orchard Road and Brewery Tap Road and immediately north of the Western Freeway.

The inspection involved driving south along Orchard Road from Gracefield Road to the point where it dead-ends at the Western Freeway and then along Brewery Tap Road to the point where the proposed development site meets the road. The proposed development site was not accessed and all observations were recorded from the adjacent road edge.

Results

The Orchard Road reserve is devoid of native vegetation adjacent to the proposed development site and for most of the distance to the north up to Gracefield Road. The easement supports predominantly introduced grasses and herbs and here are no indigenous trees or shrubs. There may be the occasional small native species interspersed within the introduced species by I did not see any.

The Brewery Tap Road easement adjacent to the proposed development site supports predominantly introduced grasses and herbs and no native species were seen in this area.

The proposed development site appears to support introduced vegetation only. However, a more detailed assessment including access to the site would be required to confirm this observation.

Orchard Road and Brewery Tap Road as a wildlife corridors

I can see no evidence of either Orchard Road or Brewery Tap Road easements being used as, or suitable for, a wildlife corridor. Both roads support predominantly introduced grasses and herbs and as such would be unsuitable as habitat, or as a movement corridor, for most native fauna species.

It is known that a culvert underpass, installed with the aim of facilitating Koala movement under the western Freeway, is located approximately 500m to the west of Orchard Road. The underpass does not

Biosis Pty Ltd
Ballarat Resource Group

506 Macarthur Street
Ballarat VIC 3350

Phone: 03 5331 7000
Fax: 03 5331 7033

ACN 006 175 097
ABN 65 006 175 097

Email: ballarat@biosis.com.au

biosis.com.au

feed directly into the proposed development site and development of the proposed site is unlikely to have any impact on the movement of Koalas within the local area.

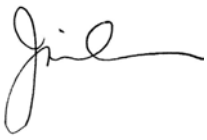
Conclusions

I conclude from my brief inspection that:

- neither Orchard Road nor Brewery Tap Road are suitable as wildlife corridors for native species;
- the proposed development is unlikely to have any impact on habitat for, or movement of, native fauna species;
- the proposed development is unlikely to have any impact ion the movement of Koalas associated with the near-by Western Freeway underpass.

I am happy to further discuss should that be required.

Yours *sincerely*



John Miller
Principal Botanist

PROVINCIAL GEOTECHNICAL PTY. LTD.

CONSULTING GEOLOGISTS

A.B.N. 88 090 400 114

PRINCIPAL: ANDREW P. REDMAN BSc.,

GEELONG
91 Nicholas Street, NEWTOWN VIC 3220
P.O. BOX 1161, GEELONG VIC 3220
Phone: (03) 5223 1566 Fax: (03) 5222 4560

BALLARAT
PO BOX 1124, BAKERY HILL VIC 3354
Phone: (03) 5338 1770 Fax: (03) 5339 6598

EMAIL: admin@pgvic.com.au

3rd June 2020

Reference: 14458F/I5097

KAUFMANN PROPERTY CONSULTANTS
ATT: MIKE KAUFMANN
141 WENDOUREE PARADE
LAKE WENDOUREE VIC 3350

Email: kpc@kaufmannpc.com.au

Lots 1 & 2, CA 20 & 21 Orchard Lane & Kokoda Street, Brown Hill, Victoria.

Dear Sir,

As requested we re-visited the above site to confirm that conditions have not altered since our original report (Reference: I5097 Dated 2nd October 2015).

We understand this is a requirement of the City of Ballarat in respect to the proposed planning permit for the site. As a result of a review of our original report and our inspection (am 03/06/2020) We can confirm that there has been no change to site conditions that would alter the observations, conclusions and recommendations contained in our original report.

I hope this information is of assistance to you.

Yours sincerely

ANDREW REDMAN BSc.
GEOLOGIST.
AR: hs

PROVINCIAL GEOTECHNICAL PTY. LTD.
CONSULTING GEOLOGISTS
A.B.N. 88 090 400 114

GEELONG
91 Nicholas Street, NEWTOWN VIC 3220
P.O. BOX 1161, GEELONG VIC 3220
Phone: (03) 5223 1566 Fax: (03) 5222 4560

BALLARAT
P. O. BOX 1124, BAKERY HILL VIC 3354
Phone: (03) 5338 1770 Fax: (03) 5339 6598

E-MAIL: admin@pgvic.com.au

PRINCIPAL: ANDREW P. REDMAN BSc.

PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT

DATE:	2nd October 2015
CLIENT:	KAUFMANN PROPERTY CONSULTANTS 141 WENDOUREE PARADE LAKE WENDOUREE VIC 3350
SITE:	Lot's 1 and 2, CA's 20 and 21 Orchard Lane and Kokoda Street BROWN HILL VICTORIA
REF. NO:	I5097
COMMISSION:	Preliminary Site Investigation for potential contamination.

CONTENTS

APPENDICES

1. INTRODUCTION:

In September 2015, Provincial Geotechnical Pty Ltd was commissioned by Kaufmann Property Consultants to undertake a Preliminary Environmental Site Assessment (P.E.S.A.) for a site encompassing Lot's 1 and 2, CA's 20 and 21, Orchard Lane and Kokoda Street, Brown Hill. The Property Report for the 4 allotments are appended (Appendix i).

We understand that a rezoning of the consolidated four allotments (the site) is proposed, going from Rural Living to Mixed Use.

The purpose of this P.E.S.A. was to assess the presence or otherwise of contamination on the site as a result of past site activities (i.e. contaminating activities carried out on site).

Specifically, we have been asked to consider potential contamination from insecticides (including Dieldren) as the site is reported to have been used for vegetable farming.

We understand that this investigation is part of a due diligence process requested by the City of Ballarat Council.

Reference to Table 2 Assessment Matrix within the D.S.E General Practice Note June 2005 titled Potentially Contaminated Land indicates the site has a medium potential for contamination.

This site is currently classified as "Other Uses-Agriculture" and potential contamination is considered a medium risk.

We understand that the current use may change the land use to 'Sensitive Uses' (Dwellings, Residential buildings).

As such the appropriate level of assessment is "B" (Require a site assessment from a suitably qualified environmental professional if insufficient information is available to determine if an audit is appropriate. If advised that an audit is not required, default to C).

The relevant Table 2 of the General Practice Notes is provided.

The General Practice Note is appended for reference (Appendix ii).

2. SCOPE OF WORKS:

The scope of works undertaken by Provincial Geotechnical Pty Ltd for the investigation include:

- Site Inspection
- Soil sampling program
- Laboratory analysis – EPA screen.
- Provision of Preliminary Site Investigation Report

General Practice Notes Table 2 – Assessment Matrix

PROPOSED LAND-USE	POTENTIAL FOR CONTAMINATION (as indicated in Table 1)		
	High	Medium	Low
Sensitive Uses			
Child care centre, pre-school or primary school	A	B	C
Dwellings, residential buildings etc.	A	B	C
Other uses			
Open space	B	C	C
Agriculture	B	C	C
Retail or office	B	C	C
Industry or warehouse	B	C	C

A: Require an environmental audit as required by Ministerial Direction No. 1 to the Environmental Audit Overlay when a planning scheme amendment or planning permit application would allow a sensitive use to establish on potentially contaminated land.

An environmental audit is also strongly recommended by the SEPP where a planning permit application would allow a sensitive use to be established on land with 'high potential' for contamination.

B: Require a site assessment from a suitably qualified environmental professional if insufficient information is available to determine if an audit is appropriate. If advised that an audit id not required, default to C.

C: General duty under Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act 1987.

3. SITE DESCRIPTION:

The overall site is currently used for agriculture with two dwellings and shedding present.

An aerial photograph is appended to provide current site context (Appendix iii).

The site slope is slight to the north.

There is no current physical evidence on site of historical land usage prior to the existing development. We consider this was a "greenfield" site prior to the existing physical development and use for agriculture.

4. SITE GEOLOGY:

Underlying site Geology is Devonian aged granites. Appended is a Geovic Map delineating the site location within the regional Geology (Appendix iv).

5. SAMPLING PROGRAM:

A comprehensive sampling program was undertaken with an approximate grid pattern of 50 metres square.

51 samples in total were retrieved from a depth of 100mm. The Sample Location Plan is appended (Appendix v).

The sampling program did not include sampling of ground water.

6. POTENTIAL CONTAMINANTS ANALYSED:

Laboratory analysis included the following:

i. Heavy Metals
ii. Organochlorine pesticides

7. CRITERIA:

The following criteria were used for threshold comparison.

1. EPA Soil Hazard Categorisation and Management IWRG – 621 – June 2009.
2. N.E.P.M Schedule B1 – Guidelines for Investigation for Soils and Groundwater (Amended 16 May 2013).

Copies of the relevant extracts from these documents are attached (Refer to Appendix vi).

8. FINDINGS:

8.1 SITE INVESTIGATION

A visual inspection of permanent land features of the site was undertaken. We are of the opinion that the existing infrastructure has been constructed on a greenfield site.

There was no other evidence recorded of unusual natural soil conditions beyond those expected.

In respect to other forms of potential contamination we did not observe any of the following:

1. visual evidence of contamination.
2. olfactory evidence of contamination.
3. evidence of rubble, refuse or organics.

A Mine Subsidence Hazard Report was sourced to identify any records of workings on the allotment (Appendix vii).

The Mine Subsidence Hazard Report indicates that their records do not show the presence of any mine workings on this site, and it lies outside any known mined area.

8.2 LABORATORY ANALYSIS

Comparison to the E.P.A Soil Hazard Categorisation & Management Table 2.

8.2.1 HEAVY METALS

i. Arsenic

Concentrations between <1 p.p.m and 15 p.p.m. All 51 samples below upper threshold concentrations of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3 (20 p.p.m.).

ii. Cadmium

Concentrations <0.1 p.p.m – 0.2 p.p.m. All 51 samples below threshold concentrations of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (3 p.p.m.).

iii. Chromium

Concentrations between 4 p.p.m. and 21 p.p.m. No threshold criteria available.

iv. Copper

Concentrations between 3 p.p.m and 64 p.p.m. All 51 samples below threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (100 p.p.m.).

8.2.1 HEAVY METALS CONTINUED

v. Lead

Concentrations between <1 p.p.m and 61 p.p.m. All 51 samples below threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (300 p.p.m.).

vi. Mercury

Concentrations between >0.1 p.p.m and 0.2 p.p.m. All 51 samples below upper threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (1 p.p.m.).

vii. Nickel

Concentrations between 2 p.p.m. and 70 p.p.m. All 51 samples below threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (60 p.p.m.).

viii. Zinc

Concentrations between 12 p.p.m. and 183 p.p.m. All 51 samples below upper threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (200 p.p.m.).

8.2.2 OCP's

a. Dieldren

Concentrations <0.1 p.p.m (undetectable). All 51 samples below upper threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (1 p.p.m.).

b. DDT, DDD and DDE

Concentrations between <0.1 p.p.m and 0.6 p.p.m. All 51 samples below upper threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (1 p.p.m.).

COMPARISON TO NEPM SCHEDULE B1 TABLE 1A (1) – HEALTH INVESTIGATION LEVELS FOR SOIL CONTAMINANTS.

All samples for all potential contaminants yielded concentrations below the threshold for Exposure Setting A which is the most sensitive exposure setting that can be applied to this site ('Standard' residential with garden/accessible soil (home-grown produce contributing less than 10% of vegetable and fruit intake; no poultry): this category includes children's day-care centres, kindergartens, pre-schools and primary schools).

10. CONCLUSION:

Based on the laboratory analysis program undertaken, this site does not yield concentrations of the analytes tested to a level of concern in respect to human health for rezoning of the allotments to a more sensitive use.

Please contact this office if you require further information or assistance.

ANDREW REDMAN BSc.
GEOLOGIST.
AR: hs

APPENDICES

i. Site Locality Plan - Property Report

ii. General Practice Notes

iii. Aerial Photograph

iv. Geovic Map

v. Sample Location Plan

vi. Criteria Extracts

vii. Mine Subsidence Hazard Report

viii. Analytical Laboratory Results

ix. Statement of Limitations

APPENDIX i

SITE LOCALITY PLAN - PROPERTY REPORT

Land .vic.gov.au

Property Report from www.land.vic.gov.au on 18 September 2015 12:55 PM

Address: 65 ORCHARD LANE BROWN HILL 3350
Lot and Plan Number: Lot 1 PS629326
Standard Parcel Identifier (SPI): 1\PS629326
Local Government (Council): BALLARAT **Council Property Number:** 2034984
Directory Reference: VicRoads 567 Q8

This property is in a designated bushfire prone area.
Special bushfire construction requirements apply. Planning provisions may apply.

Further information about the building control system and building in bushfire prone areas can be found in the Building Commission section of the Victorian Building Authority website www.vba.vic.gov.au

State Electorates

Legislative Council: WESTERN VICTORIA
Legislative Assembly: BUNINYONG

Utilities

Regional Urban Water Business: Central Highlands Water
Rural Water Business: Southern Rural Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: RURAL LIVING ZONE (RLZ)
SCHEDULE TO THE RURAL LIVING ZONE
Planning Overlay: DESIGN AND DEVELOPMENT OVERLAY (DDO)
Description not available SCHEDULE (DDO2)

Planning scheme data last updated on 17 September 2015.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State, local, particular and general provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting Planning Schemes Online

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the Planning & Environment Act 1987. It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates

The Planning Property Report includes separate maps of zones and overlays

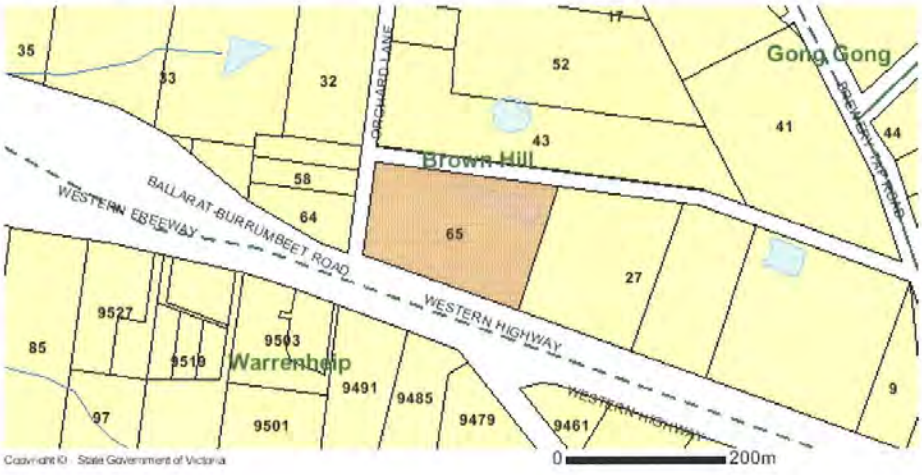
For details of surrounding properties, use this service to get the Reports for properties of interest

To view planning zones, overlay and heritage information in an interactive format visit Planning Maps Online

For other information about planning in Victoria visit www.delwp.vic.gov.au/planning

Land
.vic.gov.au

Area Map



Land .vic.gov.au

Property Report from www.land.vic.gov.au on 18 September 2015 12:53 PM

Lot and Plan Number: Lot 2 PS629326
Address: 27 BREWERY TAP ROAD BROWN HILL 3350
Standard Parcel Identifier (SPI): 2\PS629326
Local Government (Council): BALLARAT **Council Property Number:** 2034985 (Part)
Directory Reference: VicRoads 567 Q8

Note: This parcel is part of a property. For property details get the free Basic Property Report at Property Reports

This parcel is in a designated bushfire prone area.
Special bushfire construction requirements apply. Planning provisions may apply.

Further information about the building control system and building in bushfire prone areas can be found in the Building Commission section of the Victorian Building Authority website www.vba.vic.gov.au

Parcel Details

This is 1 parcel of 2 parcels comprising the property.The parcel searched for is marked with an * in the table below.

Lot/Plan or Crown Description	SPI
*Lot 2 PS629326	2\PS629326
PARISH OF WARRENHEIP Allot. 20 Sec. 24	20~24\PP3760

State Electorates

Legislative Council: WESTERN VICTORIA
Legislative Assembly: BUNINYONG

Utilities

Regional Urban Water Business: Central Highlands Water
Rural Water Business: Southern Rural Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: RURAL LIVING ZONE (RLZ)
SCHEDULE TO THE RURAL LIVING ZONE
Planning Overlay: DESIGN AND DEVELOPMENT OVERLAY (DDO)
Description not available SCHEDULE (DDO2)

Planning scheme data last updated on 17 September 2015.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State, local, particular and general provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting Planning Schemes Online

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the Planning & Environment Act 1987. It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates

The Planning Property Report includes separate maps of zones and overlays

For details of surrounding properties, use this service to get the Reports for properties of interest

To view planning zones, overlay and heritage information in an interactive format visit Planning Maps Online

For other information about planning in Victoria visit www.delwp.vic.gov.au/planning

Land
.vic.gov.au

Area Map

Land .vic.gov.au

Property Report from www.land.vic.gov.au on 18 September 2015 12:50 PM

Crown Description: Allot. 20 Sec. 24 WARRENHEIP
Address: 27 BREWERY TAP ROAD BROWN HILL 3350
Standard Parcel Identifier (SPI): 20~24\PP3760
Local Government (Council): BALLARAT **Council Property Number:** 2034985 (Part)
Directory Reference: VicRoads 567 R8

Note: This parcel is part of a property. For property details get the free Basic Property Report at Property Reports

This parcel is in a designated bushfire prone area.
Special bushfire construction requirements apply. Planning provisions may apply.

Further information about the building control system and building in bushfire prone areas can be found in the Building Commission section of the Victorian Building Authority website www.vba.vic.gov.au

Parcel Details

This is 1 parcel of 2 parcels comprising the property.The parcel searched for is marked with an * in the table below.

Lot/Plan or Crown Description	SPI
Lot 2 PS629326	2\PS629326
WARRENHEIP *Allot. 20 Sec. 24	20~24\PP3760

State Electorates

Legislative Council: WESTERN VICTORIA
Legislative Assembly: BUNINYONG

Utilities

Regional Urban Water Business: Central Highlands Water
Rural Water Business: Southern Rural Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: RURAL LIVING ZONE (RLZ)
SCHEDULE TO THE RURAL LIVING ZONE
Planning Overlay: DESIGN AND DEVELOPMENT OVERLAY (DDO)
Description not available SCHEDULE (DDO2)

Planning scheme data last updated on 17 September 2015.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State, local, particular and general provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting Planning Schemes Online

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the Planning & Environment Act 1987. It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates

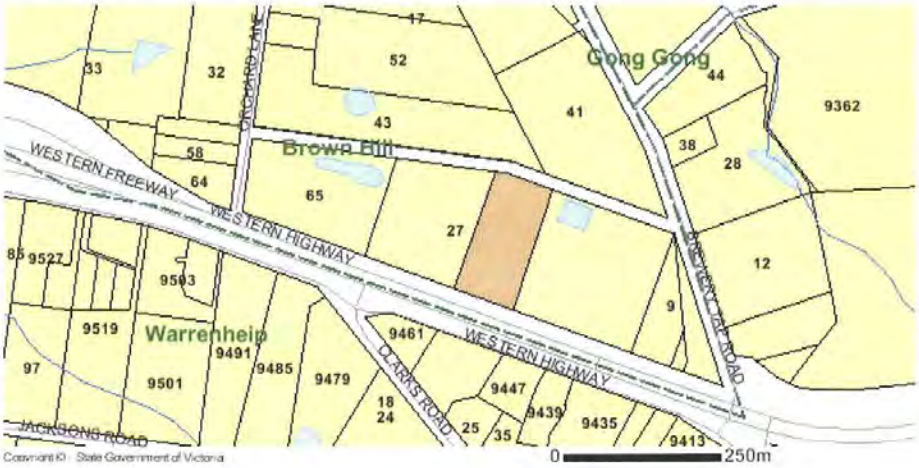
The Planning Property Report includes separate maps of zones and overlays

For details of surrounding properties, use this service to get the Reports for properties of interest

To view planning zones, overlay and heritage information in an interactive format visit Planning Maps Online

For other information about planning in Victoria visit www.delwp.vic.gov.au/planning

Area Map



Land .vic.gov.au

Property Report from www.land.vic.gov.au on 18 September 2015 12:51 PM

Address: KOKODA STREET BROWN HILL 3350
Crown Description: Allot. 21 Sec. 24 PARISH OF WARRENHEIP
Standard Parcel Identifier (SPI): 21~24\PP3760
Local Government (Council): BALLARAT **Council Property Number:** 2054238
Directory Reference: VicRoads 567 R8

This property is in a designated bushfire prone area.
Special bushfire construction requirements apply. Planning provisions may apply.

Further information about the building control system and building in bushfire prone areas can be found in the Building Commission section of the Victorian Building Authority website www.vba.vic.gov.au

State Electorates

Legislative Council: WESTERN VICTORIA
Legislative Assembly: BUNINYONG

Utilities

Regional Urban Water Business: Central Highlands Water
Rural Water Business: Southern Rural Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: RURAL LIVING ZONE (RLZ)
SCHEDULE TO THE RURAL LIVING ZONE
Planning Overlay: DESIGN AND DEVELOPMENT OVERLAY (DDO)
Description not available SCHEDULE (DDO2)

Planning scheme data last updated on 17 September 2015.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State, local, particular and general provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting Planning Schemes Online

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the Planning & Environment Act 1987. It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates

The Planning Property Report includes separate maps of zones and overlays

For details of surrounding properties, use this service to get the Reports for properties of interest

To view planning zones, overlay and heritage information in an interactive format visit Planning Maps Online

For other information about planning in Victoria visit www.delwp.vic.gov.au/planning

Area Map

APPENDIX ii

GENERAL PRACTICE NOTES

Department of Sustainability and Environment

Potentially Contaminated Land

General Practice Note **June 2005**

This General Practice Note is designed to provide guidance for planners and applicants about:

- how to identify if land is potentially contaminated
- the appropriate level of assessment of contamination for a planning scheme amendment or planning permit application
- appropriate conditions on planning permits
- circumstances where the Environmental Audit Overlay should be applied or removed.

What is potentially contaminated land?

Potentially contaminated land is defined in *Ministerial Direction No. 1 – Potentially Contaminated Land*, as land used or known to have been used for industry, mining or the storage of chemicals, gas, wastes or liquid fuel (if not ancillary to another use of land). This practice note also deals with land that may have been contaminated by other means such as by ancillary activities, contamination from surrounding land, fill using contaminated soil or agricultural uses.

How is potentially contaminated land considered in the planning system?

The planning system is the primary means for regulating land use and approving development and is an important mechanism for triggering the consideration of potentially contaminated land.

The *Planning and Environment Act 1987* requires a **planning authority** when preparing a planning scheme or planning scheme amendment to *'take into account any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment'* (Section 12).

Ministerial Direction No. 1 – Potentially Contaminated Land (*Direction No. 1*) requires **planning authorities** when preparing planning scheme amendments, to satisfy themselves that the environmental conditions of land proposed to be used for a sensitive use (defined as residential, child-care centre, pre-school centre or primary school), agriculture or public open space are, or will be, suitable for that use.

EPA VICTORIA

Victoria The Place To Be

If the land is potentially contaminated and a sensitive use is proposed, *Direction No. 1* provides that a planning authority must satisfy itself that the land is suitable through an environmental audit.

Clause 15.06 of the *State Planning Policy Framework* contains State Planning Policy for soil contamination. Clause 15.06-2 refers to *Direction No. 1* and also states that in considering applications for use of land used or known to have been used for industry, mining or the storage of chemicals, gas, wastes or liquid fuel, responsible authorities should require applicants to provide adequate information on the potential for contamination to have adverse effects on the future land use.

The Environmental Audit Overlay (EAO) is a mechanism provided in the *Victoria Planning Provisions* and planning schemes to ensure the requirement for an environmental audit under *Direction No.1* is met before the commencement of the sensitive use or any buildings and works associated with that use. The application of the overlay, in appropriate circumstances, ensures the requirement will be met in the future but does not prevent the assessment and approval of a planning scheme amendment.

The Act also requires a **responsible authority**, before deciding on a planning permit application, to consider *'any significant effects which the responsible authority considers the use or development may have on the environment or which the responsible authority considers the environment may have on the use or development'* (Section 60).

What is an environmental audit?

The environmental audit system was introduced under the *Environment Protection Act 1970*. It aims to identify the environmental quality of a segment of the environment and any detriment to the beneficial uses of that segment. In the case of land, the beneficial uses are linked to land use.

A statutory environmental audit provides for an environmental auditor appointed under the *Environment Protection Act* 1970, to undertake an independent assessment of the condition of a site and form an opinion about its suitability for the proposed use. To form such an opinion, the auditor must gather and review sufficient information including site history information and the results of sampling and analysis of soil and possibly groundwater, surface water and air.

An audit of the condition of a site may result in the issue of either:

- a **Certificate** of Environmental Audit that indicates the auditor is of the opinion that the site is suitable for any beneficial use and that there is no restriction on use of the site due to its environmental condition; or
- a **Statement** of Environmental Audit that indicates that the auditor is of the opinion that there is, or may be, some restriction on use of the site due to its environmental condition. A Statement may include conditions that require remediation works to be undertaken or places ongoing requirements on the site. A Statement might also indicate that a site is not suitable for any use, in which case the EPA will usually issue a Notice to require clean up or management of that site.

An auditor must first consider whether a Certificate can be issued for the site. This is the desired outcome for all sites. However, if a Certificate cannot be issued then a Statement of Environmental Audit must be issued.

An environmental audit reflects the condition of the site at the date of issue of the Certificate or Statement. If the site condition changes, an additional assessment may be required.

Section 53 ZE of the *Environment Protection Act 1970* requires that an occupier provide to any person who proposes to become an occupier a copy of any Statement of Environmental Audit that has been issued for the site (unless a Certificate of Environmental Audit has been subsequently issued).

What does the SEPP (Prevention and Management of Contamination of Land) 2002 do?

The *State Environment Protection Policy (Prevention and Management of Contamination of Land) (SEPP)* was released in 2002 to bring together all matters relating to contamination of land, including responsibilities for prevention and management of contamination.

The SEPP confirms the requirements of *Direction No. 1*. It also outlines useful actions a responsible authority should take in the assessment of planning permit applications. The SEPP provides guidance to responsible authorities in Clauses 13 & 14 of the SEPP. The suggested actions are elaborated on in later sections of this practice note.

How is potentially contaminated land identified?

Contamination of land is often a result of current or historical activities that have taken place at a site, or adjacent to it.

To identify the potential for contamination, the following steps may assist:

- Inspect the site. Observations should be made regarding evidence of contamination or historical activities that may give rise to contamination (for example, fuel tanks).
- Identify whether an Environmental Audit Overlay (EAO) exists over the site.
- Review any Site Analysis presented in accordance with Clauses 54.01-1 (single dwellings) & 55.01-1 (two or more dwellings) of planning schemes (these clauses require issues of site contamination to be identified).
- Consider any available information about the site:
  - The current and previous zoning, ownership or activities carried out on the site (for example council, rail, other utility or defence). Council rate records are a useful record of this information.
  - Any previous investigations or site assessments conducted.
  - Any potential contamination from surrounding land uses (for example, an adjacent service station known to be causing off-site contamination).
- Review lists of Certificates and Statements of Environmental Audit held by council and EPA. Environmental auditors are required to provide a copy of any Certificate or Statement issued to both the relevant council and the EPA.
- Review the EPA Priority Sites Register for information about sites with a current EPA Notice (for example, clean-up notice or pollution abatement notice) via Landata (www.land.vic.gov.au , Tel: 8636 2456) or Anstat (www.anstat.com.au, Tel. 9278 1172).

What information is needed?

In most cases the relevant information should be available from council or EPA records.

Particular types of current or past land uses or activities on a site (see section below) can act as a 'trigger' for the collection of more information about the previous uses or activities. Zoning may indicate past land uses, but is not a substitute for a detailed review of the site history.

If this information is not available to council officers, the SEPP suggests that further information should be requested from the proponent or applicant.

A suitably qualified environmental professional may provide an opinion on whether land intended for a sensitive use, is potentially contaminated. To contact a suitably qualified contaminated land professional, go to either the EPA environmental auditors appointed in the category of contaminated land (www.epa.vic.gov.au/Industry/environmental_auditors.asp) or the Australian Contaminated Land Consultants Association (ACLCA) Victorian Branch, at www.aclca.asn.au or Ph: 9509 5949.

Where the applicant submits an environmental assessment of the land, the planning or responsible authority may require the applicant to contribute financially to an independent review of the information by a suitably qualified environmental professional.

What land uses or activities might indicate potential contamination?

An assessment of the current *or previous* land uses of a site is an important step in the identification of potentially contaminated land. Table 1 lists the types of land uses that may have potential for contaminating land.

Table 1 - Potential for contamination

High potential for contamination includes land used for:

- Abattoir
- Abrasive blasting
- Airport
- Asbestos production/disposal
- Asphalt manufacturing
- Automotive repair/engine works
- Battery manufacturing/recycling
- Bitumen manufacturing
- Boat building/maintenance
- Breweries/distilleries
- Brickworks
- Chemical manufacturing/storage/blending
- Cement manufacture
- Ceramic works
- Coke works
- Compost manufacturing
- Concrete batching
- Council works depot
- Defence works
- Drum re-conditioning facility
- Dry cleaning
- Electrical/electrical components manufacture
- Electricity generation/power station
- Electroplating
- Explosives industry
- Fibreglass reinforced plastic manufacture
- Foundry
- Fuel storage depot
- Gasworks
- Glass manufacture
- Iron and steel works
- Landfill sites/waste depots
- Lime works

- Metal coating
- Metal finishing and treatments
- Metal smelting/refining/finishing
- Mining and extractive industries
- Oil or gas production/refining
- Pest control depots
- Printing shops
- Pulp or paper works
- Railway yards
- Shooting or gun clubs
- Scrap metal recovery
- Service stations/fuel storage
- Sewage treatment plant
- Ship building/breaking yards
- Shipping facilities – bulk (rate <100 t/day)
- Stock dipping sites
- Spray painting
- Tannery (and associated trades)
- Textile operations
- Timber preserving/treatment
- Tyre manufacturing
- Underground storage tanks
- Utility depots
- Waste treatment/incineration/disposal
- Woolscouring

Medium potential for contamination can be identified by certain types of activities carried out on the land, which may be incidental to the main site activity. The nature of the products used or stored, the quantity stored, and the location of use or storage should be considered. Such activities might include:

- Chemical storage
- Fuel storage
- Underground storage tank (if recently installed and no evidence of leaks)
- Market gardens
- Waste disposal
- Filling (imported soil)
- Other industrial activities (such as warehousing of chemicals that may be spilt during loading or unloading)

Low potential for contamination is likely to exist if none of the identified uses or activities in the high and medium potential categories are known to have been carried out on the land.

What level of assessment is required?

The level of environmental assessment necessary for a planning scheme amendment or planning permit application will depend on the statutory requirements for the proposed land use and the potential for contamination.

Where land has been identified as being potentially contaminated, an assessment of the level of contamination is necessary before a decision is made about the future use or development of that land. Councils should consider whether further information or advice from an expert should be sought to assist in determining what level of assessment is required. This enables planning decisions to be made with the knowledge of the condition of the site and the most satisfactory site management strategies.

There are two forms of assessment that can be applied. These are:

Require an environmental audit: a statutory audit undertaken by an environmental auditor under the *Environment Protection Act 1970*. The outcome is either a Certificate of Environmental Audit or a Statement of Environmental Audit.

Require a site assessment: a preliminary review of the site history (including current and previous uses and activities) by a suitably qualified environmental professional.

The matrix in Table 2 indicates the appropriate assessment level, based on proposed land use and current or historic land uses or activities carried out on the land.

Table 2 – Assessment matrix

PROPOSED LAND-USE	POTENTIAL FOR CONTAMINATION (as indicated in Table 1)		
	High	*Medium*	*Low*
Sensitive Uses			
Child care centre, pre-school or primary school	*A*	*B*	*C*
Dwellings, residential buildings etc.	*A*	*B*	*C*
Other Uses			
Open space	*B*	*C*	*C*
Agriculture	*B*	*C*	*C*
Retail or office	*B*	*C*	*C*
Industry or warehouse	*B*	*C*	*C*

A: *Require an environmental audit as required by Ministerial Direction No. 1 or the Environmental Audit Overlay when a planning scheme amendment or planning permit application would allow a sensitive use to establish on potentially contaminated land.*

An environmental audit is also strongly recommended by the SEPP where a planning permit application would allow a sensitive use to be established on land with 'high potential' for contamination.

B: *Require a site assessment from a suitably qualified environmental professional if insufficient information is available to determine if an audit is appropriate. If advised that an audit is not required, default to C.*

C: *General duty under Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act 1987.*

When is an environmental audit necessary for a planning scheme amendment?

For land that has been identified as potentially contaminated land and where a planning scheme amendment would have the effect of allowing that land to be used for a sensitive use, *Direction No. 1* requires a planning authority to satisfy itself that the land is suitable for the use by:

(a) A Certificate of Environmental Audit issued for the site; or

(b) A Statement of Environmental Audit issued by an environmental auditor stating that the environmental conditions of the site are suitable for the sensitive use (with or without conditions on the use of the site).

Direction No. 1 requires that this be done before notice of a planning scheme amendment is given. However, it may be appropriate to delay this requirement if testing of the land before a notice of the amendment is given is difficult or inappropriate. For instance, if the rezoning relates to a large strategic exercise or involves multiple sites in separate ownership. *Direction No. 1* provides for the requirement for an environmental audit to be included in the amendment. This can be done by applying the EAO. See the section 'When should an Environmental Audit Overlay be applied'.

For a proposal to redevelop potentially contaminated land for a use other than a sensitive use (for example, a retail premises or office use), a planning authority can require an environmental audit if it considers it appropriate.

Direction No. 1 provides for an exemption from the need to comply with the Direction. Such an exemption may be appropriate where:

- Potentially contaminated land is already used for a sensitive use, agriculture or open space.
- Prior industry use of the land was benign and unlikely to result in any contamination.
- If there is a regional strategy to manage contamination (for example former gold mining activities).

A planning authority may request an exemption from the Minister for Planning or the Deputy Secretary, Built Environment, Department of Sustainability and Environment. The Minister or Deputy Secretary must consult with the EPA before making a decision. The planning authority should consult with the EPA before requesting an exemption.

When is an environmental audit necessary for a planning permit application?

For land that has been identified as potentially contaminated land and where a planning permit application may allow potentially contaminated land to be used for a sensitive use, the SEPP requires that the responsible authority seek a Certificate of Environmental Audit or a Statement of Environmental Audit indicating that the site is suitable for the proposed use.

An environmental audit should be required unless the proponent can demonstrate to the satisfaction of the responsible authority that the site has never been used for a potentially contaminating activity, or that other strategies or programs are in place to effectively manage any contamination.

Uses such as open space, agriculture and outdoor playgrounds associated with other uses are not sensitive uses but include an element of risk to the public. Careful consideration should be given to the likelihood of contamination and the need for an environmental audit.

If an environmental audit is required because an EAO is applied over the land, a Certificate or Statement of Environmental Audit must be issued before the sensitive use or buildings and works associated with the sensitive use can commence. If an EAO has been applied, the planning authority has already made an assessment that the land is potentially contaminated and that it is unlikely to be suitable for a sensitive use without further assessment and remediation works or management.

There may be other circumstances where the land is known to be contaminated and it would be appropriate for the level of contamination to be fully assessed as part of the application process.

Generally an environmental audit should be provided as early as possible in the planning process. This may not always be possible or reasonable and requiring an environmental audit as a condition of permit may be acceptable if the responsible authority is satisfied that the level of contamination will not prevent the use of the site.

Environmental audit works

The EAO is not a permit trigger and does not prevent works or activities being undertaken that are associated with an environmental audit (such as soil sampling).

Remediation works

Works that are associated with a development and that might also be remediation works (such as excavation or basement construction) should not commence before the completion of an environmental audit if a planning permit has not been issued for the development.

Where a permit has been issued for a development and a requirement for an environmental audit is a condition of permit, the responsible authority should consider carefully wording the permit conditions to allow early building works that facilitate remediation of the site.

When should a site assessment be sought?

A planning or responsible authority should seek (or require a proponent to seek) a site assessment by a suitably qualified environmental professional for proposals in category B, as shown in Table 2.

A site assessment should include:

- The nature of the previous land use or activities on the site
- How long did the activity take place?
- What is known about contamination?
- How much is present?
- How is it distributed?

An environmental professional may also assist in assessing information contained in any site assessment and advising further on the need for an audit on all or part of the site. The planning or responsible authority may require the applicant to include an independent assessment of the information, as part of the assessment of the permit application.

What if there are ongoing conditions of management?

Statement of Environmental Audit available at time of decision

A Statement of Environmental Audit usually contains one or more conditions that must be implemented for the site to be suitable for the proposed use.

The planning or responsible authority must consider any conditions in a Statement and:

- include provisions in a planning scheme amendment or conditions in a planning permit that reflect the requirements of the conditions of the Statement
- require the applicant to demonstrate that the conditions included in the Statement have been or will be met before the use commences
- liaise with other agencies of appropriate jurisdiction where the nature of the conditions means that they are more properly considered by that agency (for example, liaise with the EPA about conditions requiring ongoing management of groundwater).

It is appropriate for a Section 173 agreement under the *Planning and Environment Act 1987* to be required where:

- the conditions on a Statement of Environmental Audit will be ongoing in nature and require maintenance or monitoring such as regular groundwater or waterway testing
- other parties, such as the EPA or a water authority are involved with conditions of an ongoing nature.

The agreement should also provide for periodic reporting.

Other conditions, such as maintenance of a clay barrier are suitable to include as a planning permit condition.

If the conditions of a Statement of Environmental Audit are impractical or inappropriate to include as planning permit conditions, the environmental auditor should be asked to either re-issue the Statement or to confirm that the intent of the Statement conditions are adequately captured in the proposed planning permit conditions.

Where conditions on a Statement of Environmental Audit can be most effectively implemented by another agency, the planning or responsible authority should liaise with that agency and reach agreement about responsibilities and actions. Most commonly this would involve EPA, but on occasions may involve other agencies such as water authorities (for example where conditions requiring ongoing monitoring and management of polluted groundwater are to be imposed).

Requirements where an environmental audit is a condition of permit

Where an environmental audit is to be completed in response to a condition of a planning permit, it is necessary to carefully word planning permit conditions to not only require a Certificate or Statement of Environmental Audit but to also address the implementation of Statement conditions.

An example of conditions that might be placed on a planning permit is provided below:

1. Prior to the commencement of the use or buildings and works associated with the use (or the certification or issue of a statement of compliance under the *Subdivision Act 1988*) the applicant must provide:
   (a) A Certificate of Environmental Audit in accordance with Section 53Y of the *Environment Protection Act 1970*; or
   (b) A Statement of Environmental Audit under Section 53Z of the *Environment Protection Act 1970*. A Statement must state that the site is suitable for the use and development allowed by this permit.
2. All the conditions of the Statement of Environmental Audit must be complied with to the satisfaction of the responsible authority, prior to commencement of use of the site. Written confirmation of compliance must be provided by a suitably qualified environmental professional or other suitable person acceptable to the responsible authority. In addition, sign off must be in accordance with any requirements in the Statement conditions regarding verification of works.

Where there are conditions on a Statement of Environmental Audit that require significant ongoing maintenance and/or monitoring, the following condition might also be used:

3. The applicant must enter into a Section 173 Agreement under the *Planning and Environment Act* 1987. The Agreement must be executed on title prior to the commencement of the use and prior to the issue of a Statement of Compliance under the Subdivision Act 1987. The applicant must meet all costs associated with drafting and execution of the Agreement, including those incurred by the responsible authority.

How are environmental audit conditions enforced?

Where a responsible authority becomes aware that an occupier is failing to comply with requirements set out in the planning scheme or planning permit, enforcement procedures under the *Planning and Environment Act* 1987 are available. These may include planning infringement notices, enforcement orders or prosecution through the Magistrates Court.

Where the failure to comply with Statement conditions results in a site not being suitable for its current use, EPA may issue a Clean-up Notice under the *Environment Protection Act 1970*. This also applies where the non-compliance results in pollution or a likelihood of pollution of another segment of the environment.

Depending on the nature of the conditions, other agencies may also have a role in enforcement.

When should an Environmental Audit Overlay be applied?

The Environmental Audit Overlay (EAO) is a mechanism provided in *the Victoria Planning Provisions* and planning schemes to defer the requirements of *Direction No. 1* for an environmental audit until the site is to be developed for a sensitive use.

By applying the overlay, the planning authority has made an assessment that the land is potentially contaminated land, and is unlikely to be suitable for a sensitive use without more detailed assessment and remediation works or management. The steps set out in *'How* is potentially contaminated land identified?*'* should be used to make this assessment.

The planning authority is also determining that the requirements of *Direction No. 1* may be deferred. The EAO is a statutory mechanism to provide for that deferment. The EAO is not simply a means of identifying land that is or might be contaminated and should not be used for that purpose. Previous zoning is not sufficient reason in itself to justify application of an EAO.

The Explanatory Statement to *Direction No. 1* suggests that it may only be appropriate to defer the audit requirement if testing of the land before a notice of amendment is given is difficult or inappropriate. An example might be where the rezoning relates to a large strategic exercise or involves multiple sites in separate ownership.

Planning authorities should be careful in applying the overlay. All buildings and works associated with a sensitive use (irrespective of how minor) will trigger the need to undertake an environmental audit.

Where sensitive uses already exist on a site the planning authority, before applying an EAO, should satisfy itself that these sites are potentially contaminated (through site history records). If there is no evidence of potentially contaminated land it may not be appropriate to apply the EAO to these sites.

When should an Environmental Audit Overlay be removed?

The planning authority should remove the EAO if:

- it determines that the land is not potentially contaminated land. The steps set out in 'How is potentially contaminated land identified?' will assist this decision; or
- the site is given a Certificate of Environmental Audit.

In some circumstances where a Statement of Environmental Audit is issued, it may also be possible to remove the EAO (for example, where there are minimum restrictions or conditions on the use of the site, or the conditions have been complied with). The timely removal of an EAO will avoid costly and time-consuming requirements for all parties.

References

- *Ministerial Direction No. 1 – Potentially Contaminated Land* 1989.
- *Victoria Planning Provisions*, particularly Clauses 15.06, 45.03, 54.01, 55.01 and 65.
- *State Environment Protection Policy (Prevention and Management of Contamination of Land)* June 2002.
- *Environmental Auditing of Contaminated Land* (EPA Publication 860, July 2002)).
- *Environmental Auditor (Contaminated Land) Guidelines for Issue of Certificates and Statements of Environmental Audit* (EPA Publication 759b, October 2002.

Planning Practice Notes provide practical advice on planning and urban design matters.

For copies of other planning practice notes in the series contact:

www.dse.vic.gov.au/planning

Department of Sustainability and Environment
Planning Information Centre
e-mail: planning.info@dse.vic.gov.au

ISBN 1 74152 155 6

Prepared in conjunction with the EPA Victoria
www.epa.vic.gov.au/Land-Groundwater

Find more information about the Department on the Internet at www.dse.vic.gov.au

For general information about DSE please contact:
Customer Service Centre
Phone: 136 186
(Local call cost - mobile and payphones excluded)

www.dse.vic.gov.au/planning

APPENDIX iii

AERIAL PHOTOGRAPH

PROVINCIAL GEOTECHNICAL PTY. LTD.
CONSULTING GEOLOGISTS

AERIAL PHOTOGRAPH

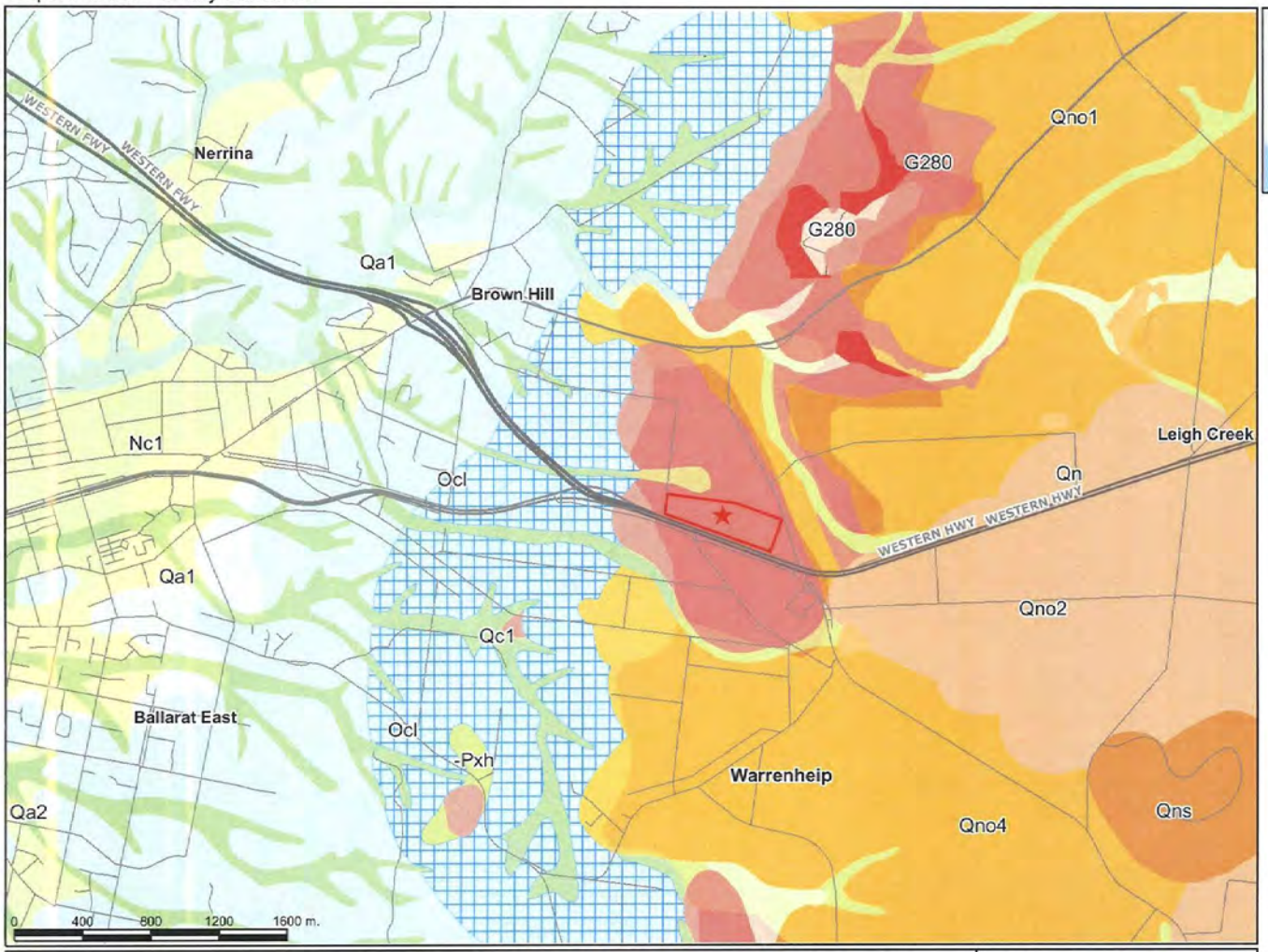
Client: KAUFMANN PROPERTY CONSULTANTS
Ref. Number: I5097
Date: 25/09/2015
Site: Lot 1 & 2, CA's 20 & 21, Orchard Lane and Kokoda Street, BROWN HILL

APPENDIX iv

GEOVIC MAP

Woodmans Hill Rezoning, Lot 1, Lot 2, CA 20 & CA 21, BROWN HILL, VIC

Department of Primary Industries



Legend

Towns (25K)

Roads (vmsimple)

- Freeway
- Highway
- Main Road
- Other

Contact Metamorphism Zones 100K

Geological Polygons 100K

- Qc3 Unnamed slump deposits
- Qc Unnamed colluvium
- Qrc1 Unnamed
- Qrt Unnamed
- Qdl1 Unnamed coastal dune deposits
- Qc5 Unnamed
- Qc4 Unnamed granite-derived colluvium
- Qdl1 Unnamed inland dune deposits
- Qc2 Coonambidgal Formation
- Qdi Unnamed inland dune deposits
- Nwo Coonambidgal Formation

Printed on 18 September 2015 13:01:22

Map Scale 1:31,243

NOT FOR NAVIGATION

GDA Vicgrid94

State Government Victoria

APPENDIX v

SAMPLE LOCATION PLAN

PROVINCIAL GEOTECHNICAL PTY. LTD.
CONSULTING GEOLOGISTS

SAMPLE LOCATION PLAN
(Not to Scale) – ◯ Distances are approximate)

Client: KAUFMANN PROPERTY CONSULTANTS
Ref. Number: I5097
Date: 25/09/2015
Site: Lot 1 & 2, CA's 20 & 21, Orchard Lane and Kokoda Street, BROWN HILL

PROVINCIAL GEOTECHNICAL PTY. LTD.
CONSULTING GEOLOGISTS

SAMPLE LOCATION PLAN
(Not to Scale) – ◯ Distances are approximate)

Client: KAUFMANN PROPERTY CONSULTANTS
Ref. Number: I5097
Date: 25/09/2015
Site: Lot 1 & 2, CA's 20 & 21, Orchard Lane and Kokoda Street, BROWN HILL

PROVINCIAL GEOTECHNICAL PTY. LTD.
CONSULTING GEOLOGISTS

SAMPLE LOCATION PLAN
(Not to Scale) – ◯ Distances are approximate)

Client: KAUFMANN PROPERTY CONSULTANTS
Ref. Number: I5097
Date: 25/09/2015
Site: Lot 1 & 2, CA's 20 & 21, Orchard Lane and Kokoda Street, BROWN HILL

APPENDIX vi

CRITERIA EXTRACTS

Table 2: Soil hazard categorisation thresholds

Category	Fill Material upper limits		Category C upper limits		Category B upper limits		
Contaminant concentration thresholds (dry weight)		TC0	ASLP1[1]	TC1	ASLP2[1]	TC2	
Units		(mg/kg)	(mg/L)	(mg/kg)	(mg/L)	(mg/kg)	
Inorganic species		**Inorganic species**		**Inorganic species**		**Inorganic species**	
Arsenic		20	0.7	500	2.8	2,000	
Cadmium		3	0.2	100	0.8	400	
Chromium (VI)		1	5	500	20	2,000	
Copper		100	200	5,000	800	20,000	
Lead		300	1	1,500	4	6,000	
Mercury		1	0.1	75	0.4	300	
Molybdenum		40	5	1,000	20	4,000	
Nickel		60	2	3,000	8	12,000	
Tin		50	-	500	-	-	
Selenium		10	1	50	4	200	
Silver		10	10	180	40	720	
Zinc		200	300	35,000	1,200	140,000	
Anions		**Anions**		**Anions**		**Anions**	
Cyanide		50	8	2,500	32	10,000	
Fluoride		450	150	10,000	600	40,000	
Organic species		**Organic species**		**Organic species**		**Organic species**	
Phenols (halogenated)[2]		1	2	10	8	320	
Phenols (non-halogenated)[3]		60	14	560	56	2,200	
Monocyclic aromatic hydrocarbons[4]		7	-	70	-	240	
Benzene		1	0.1	4	0.4	16	
Polycyclic aromatic hydrocarbons[5]		20	-	100	-	400	
Benzo(a)pyrene		1	0.001	5	0.004	20	
C6-C9 petroleum hydrocarbons		100	-	650	-	2,600	
C10-C36 petroleum hydrocarbons		1,000	-	10,000	-	40,000	
Polychlorinated biphenyls[6]		2	see note 6		see note 6		
Chlorinated hydrocarbons[7]		1					
Hexachlorobutadiene			0.07	2.8	0.28	11	
Vinyl chloride			0.03	1.2	0.12	4.8	
Other chlorinated hydrocarbons[8]			-	10	-	50	
Pesticides		**Pesticides**		**Pesticides**		**Pesticides**	
Organochlorine pesticides[9]		1					
Aldrin + dieldrin			0.03	1.2	0.12	4.8	
DDT + DDD + DDE			2	50	-	50	
Chlordane			0.1	4	0.4	16	
Heptachlor			0.03	1.2	0.12	4.8	
Other organochlorine pesticides[10]			-	10	-	50	

FILL MATERIAL | CATEGORY C CONTAMINATED SOIL | CATEGORY B CONTAMINATED SOIL | CATEGORY A CONTAMINATED SOIL

National Environment Protection (Assessment of Site Contamination) Measure 1999

as amended

made under section 14(1) of the

National Environment Protection Council Act 1994 (Cwlth), the *National Environment Protection Council (New South Wales) Act 1995* (NSW), the *National Environment Protection Council (Victoria) Act 1995* (Vic), the *National Environment Protection Council (Queensland) Act 1994* (Qld), the *National Environment Protection Council (Western Australia) Act 1996* (WA), the *National Environment Protection Council (South Australia) Act 1995* (SA), the *National Environment Protection Council (Tasmania) Act 1995* (Tas), the *National Environment Protection Council Act 1994* (ACT) and the *National Environment Protection Council (Northern Territory) Act 1994* (NT)

Compilation start date:	16 May 2013
Includes amendments up to:	*National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*

This compilation has been split into 22 volumes

Volume 1:	sections 1–6, Schedules A and B
Volume 2:	**Schedule B1**
Volume 3:	Schedule B2
Volume 4:	Schedule B3
Volume 5:	Schedule B4
Volume 6:	Schedule B5a
Volume 6:	Schedule B5a

Prepared by the Office of Parliamentary Counsel, Canberra

Health screening levels (HSLs) have been developed for selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depths below surface to >4 m. Further detail on their use is provided in Section 2.4 and Friebel and Nadebaum (2011a, 2011b & 2011c).

'Petroleum hydrocarbon management limits' ('management limits') are applicable to petroleum hydrocarbon compounds only. They are applicable as screening levels following evaluation of human health and ecological risks and risks to groundwater resources. They are relevant for operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites. Further detail on their use is provided in Section 2.9, including factors to be considered in determining the depth to which they apply.

2.1.2 Inappropriate use of investigation levels and screening levels

Investigation and screening levels are not clean-up or response levels nor are they desirable soil quality criteria. Investigation and screening levels are intended for assessing existing contamination and to trigger consideration of an appropriate site-specific risk-based approach or appropriate risk management options when they are exceeded. The use of these levels in regulating emissions and application of wastes to soil is inappropriate.

The use of investigation and screening levels as default remediation criteria may result in unnecessary remediation and increased development costs, unnecessary disturbance to the site and local environment, and potential waste of valuable landfill space. Similarly, the inclusion of an investigation and screening level in this guidance should not be interpreted as condoning discharges of waste up to these levels.

2.2 Health investigation levels

The health risk assessment methodology that forms the basis for calculation of HILs is provided in Schedule B4. The derivation of the HILs is presented in Schedule B7 (and appendices) and uses the *Australian exposure factor guidance* (enHealth 2012). The derivation of the HILs is illustrated by two worked examples for cadmium and benzo(a)pyrene (refer Schedule B7 Appendix B). The spreadsheet for calculating HILs is included in the ASC NEPM Toolbox (www.scew.gov.au/nepms/assessment-of-site-contamination.html).

The HILs are listed in Table 1A(1), found at the end of this Schedule.

HILs are scientifically based, generic assessment criteria designed to be used in the first stage (Tier 1 or 'screening') of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for four generic land use settings:

- HIL A – residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, (no poultry), also includes children's day care centres, preschools and primary schools
- HIL B – residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats
- HIL C – public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves) which should be subject to a site-specific assessment where appropriate
- HIL D – commercial/industrial such as shops, offices, factories and industrial sites.

The land use scenarios are described in detail in Section 3 of Schedule B7. To make generic estimates of potential human exposure to soil contaminants, scientifically based assumptions are made about the environment, human behaviour, the physicochemical characteristics of contaminants, and the fate and transport of contaminants in soil within each of these land use categories. The HILs are derived by integrating these exposure estimates with toxicity reference values, that is, tolerable daily intakes (TDI), acceptable daily intakes (ADI), and reference doses (RfD), to estimate the soil concentration of a substance that will prevent exceedence of the toxicity reference value under the defined scenario. The toxicity reference values are generally based on the known most sensitive significant toxicological effect. Where toxicity reference values come from multiple sources, their underlying assumptions, defaults and science policy should be compatible and generally similar.

HILs establish the concentration of a contaminant above which further appropriate health investigation and evaluation will be required. Levels slightly in excess of the HILs do not imply unacceptability or that a significant health risk is likely to be present. Exceeding a HIL means further investigation is required and not 'risk is present, clean-up required'.

The HILs are referred to by regulators, auditors and consultants in the process of assessing soil contamination. HILs apply generally to the top 3 m of soil for residential use. Site-specific conditions should determine the depth to which HILs apply for other land uses.

HILs are not intended to be clean-up levels. The decision on whether clean-up is required, and to what extent, should be based on site-specific assessment triggered by an exceedence of the HIL. Health risk assessment is the primary driver for making site decisions. Other considerations such as practicality, timescale, effectiveness, cost, sustainability and associated ecological risk assessment are also relevant.

2.3 Interim HILs for volatile organic chlorinated compounds

Interim HIL soil vapour levels for specific volatile organic chlorinated compounds (VOCCs) have been developed (see Table 1A(2) at the end of this Schedule) to assess the vapour inhalation pathway (also known as the 'vapour intrusion' pathway when referring to indoor exposure). The derivation of the interim HILs is presented in Schedule B7 and Appendix A6. The methodology employs a simple though conservative approach using an attenuation factor that relates the concentration of a volatile contaminant in indoor air to the concentration in soil gas immediately below a building foundation slab.

The interim HIL values derived for volatile compounds are driven by the vapour intrusion pathway (that contributes >99% of the total risk when all pathways are considered). However, it is noted that there are limitations and uncertainties associated with the assessment of volatile contaminants on the basis of soil concentrations. As these limitations are significant for volatile organic chlorinated compounds, interim HILs for soil have not been derived. Rather it is recognised that where indoor/ambient air data cannot be collected (or the data is adversely affected by background sources), the most relevant approach to the assessment of this pathway is through the collection of soil vapour data. On this basis, interim HILs have been developed for soil vapour.

The interim HILs provide Tier 1 guidance for health risks from soil contamination sources and groundwater plumes associated with this group of compounds. The values may be applied for general site assessment and sub-slab environments for evaluation of potential health risks for the 0–1 m sub-slab profile. The interim HILs broadly apply to the same generic land use categories as do the HILs, though the values for residential A and B are combined as they are based on the same exposure conditions (i.e. the same amount of time spent indoors) for the vapour inhalation pathway. In addition, secondary school buildings should be treated as residential for the purposes of evaluating risks from vapour intrusion.

Table 1A(1) Health investigation levels for soil contaminants

Chemical	Health-based investigation levels (mg/kg)			
	Residential[1] A	Residential[1] B	Recreational[1] C	Commercial/ industrial[1] D
Metals and Inorganics				
Arsenic[2]	100	500	300	3 000
Beryllium	60	90	90	500
Boron	4500	40 000	20 000	300 000
Cadmium	20	150	90	900
Chromium (VI)	100	500	300	3600
Cobalt	100	600	300	4000
Copper	6000	30 000	17 000	240 000
Lead[3]	300	1200	600	1 500
Manganese	3800	14 000	19 000	60 000
Mercury (inorganic)[5]	40	120	80	730
Methyl mercury[4]	10	30	13	180
Nickel	400	1200	1200	6 000
Selenium	200	1400	700	10 000
Zinc	7400	60 000	30 000	400 000
Cyanide (free)	250	300	240	1 500
Polycyclic Aromatic Hydrocarbons (PAHs)				
Carcinogenic PAHs (as BaP TEQ)[6]	3	4	3	40
Total PAHs[7]	300	400	300	4000
Phenols				
Phenol	3000	45 000	40 000	240 000
Pentachlorophenol	100	130	120	660
Cresols	400	4 700	4 000	25 000
Organochlorine Pesticides				
DDT+DDE+DDD	240	600	400	3600
Aldrin and dieldrin	6	10	10	45
Chlordane	50	90	70	530
Endosulfan	270	400	340	2000
Endrin	10	20	20	100
Heptachlor	6	10	10	50
HCB	10	15	10	80
Methoxychlor	300	500	400	2500
Mirex	10	20	20	100
Toxaphene	20	30	30	160
Herbicides				
2,4,5-T	600	900	800	5000
2,4-D	900	1600	1300	9000
MCPA	600	900	800	5000

Chemical	Health-based investigation levels (mg/kg)			
	Residential[1] A	Residential[1] B	Recreational[1] C	Commercial/ industrial[1] D
MCPB	600	900	800	5000
Mecoprop	600	900	800	5000
Picloram	4500	6600	5700	35000
Other Pesticides				
Atrazine	320	470	400	2500
Chlorpyrifos	160	340	250	2000
Bifenthrin	600	840	730	4500
Other Organics				
PCBs[8]	1	1	1	7
PBDE Flame Retardants (Br1–Br9)	1	2	2	10

Notes:

(1) Generic land uses are described in detail in Schedule B7 Section 3

HIL A – Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.

HIL B – Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.

HIL C – Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include undeveloped public open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate.

HIL D – Commercial/industrial, includes premises such as shops, offices, factories and industrial sites.

(2) Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered where appropriate (refer Schedule B7).

(3) Lead: HIL is based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HIL D where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate.

(4) Methyl mercury: assessment of methyl mercury should only occur where there is evidence of its potential source. It may be associated with inorganic mercury and anaerobic microorganism activity in aquatic environments. In addition the reliability and quality of sampling/analysis should be considered.

(5) Elemental mercury: HIL does not address elemental mercury. A site-specific assessment should be considered if elemental mercury is present, or suspected to be present.

(6) Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P) adopted by CCME 2008 (refer Schedule B7). The B(a)P TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF, given below, and summing these products.

PAH species	TEF	PAH species	TEF
Benzo(a)anthracene	0.1	Benzo(g,h,i)perylene	0.01
Benzo(a)pyrene	1	Chrysene	0.01
Benzo(b+j)fluoranthene	0.1	Dibenz(a,h)anthracene	1
Benzo(k)fluoranthene	0.1	Indeno(1,2,3-c,d)pyrene	0.1

Where the B(a)P occurs in bitumen fragments it is relatively immobile and does not represent a significant health risk.

(7) Total PAHs: HIL is based on the sum of the 16 PAHs most commonly reported for contaminated sites (WHO 1998). The application of the total PAH HIL should consider the presence of carcinogenic PAHs and naphthalene (the most volatile PAH). Carcinogenic PAHs reported in the total PAHs should meet the B(a)P TEQ HIL. Naphthalene reported in the total PAHs should meet the relevant HSL.

(8) PCBs: HIL relates to non-dioxin-like PCBs only. Where a PCB source is known, or suspected, to be present at a site, a site-specific assessment of exposure to all PCBs (including dioxin-like PCBs) should be undertaken.

APPENDIX vii

MINE SUBSIDENCE HAZARD REPORT

SEARCH FOR MINE HAZARD
Form No. 692

18 Sep 2015

Selection:

65 ORCHARD LANE BROWN HILL 3350

It is advised that:

Our records do not show the presence of any mine workings on this site, and it lies outside any known mined area.

Contact Department of Primary Industries for information:

GIS Officer
Minerals & Petroleum Business Centre
Phone: 9658 4456
Fax: 9658 4460
E-mail: mbc.info@dpi.vic.gov.au

NOTE: Although mine subsidence hazard advice is given as accurately as our plans and records permit, these records are often incomplete, and it is not possible to guarantee that no subsidence hazard exists for properties which are the subject of this report. Our plans and records are updated whenever new information becomes available.

The information acquired by the user is as accurate as our records permit, however, no warranty or guarantee is given, and no responsibility arising therefrom is accepted by the State of Victoria or the Department, its officers, agents or delegates. The Department makes no representation as to the hazards on the land.

Mine Overlaps:

Current Tenement Overlaps:

Expired Tenement Overlaps:

SEARCH FOR MINE HAZARD
Form No. 692

18 Sep 2015

Selection:

27 BREWERY TAP ROAD BROWN
HILL 3350

It is advised that:

Our records do not show the presence of any mine workings on this site, and it lies outside any known mined area.

Contact Department of Primary Industries for information:

GIS Officer
Minerals & Petroleum Business Centre
Phone: 9658 4456
Fax: 9658 4460
E-mail: mbc.info@dpi.vic.gov.au

Mine Overlaps:

Current Tenement Overlaps:

Expired Tenement Overlaps:

SEARCH FOR MINE HAZARD
Form No. 692

18 Sep 2015

Selection:
Allotment: 20
Section: 24
Parish: WARRENHEIP

It is advised that:
Our records do not show the presence of any mine workings on this site, and it lies outside any known mined area.

Contact Department of Primary Industries for information:
GIS Officer
Minerals & Petroleum Business Centre
Phone: 9658 4456
Fax: 9658 4460
E-mail: mbc.info@dpi.vic.gov.au

NOTE: Although mine subsidence hazard advice is given as accurately as our plans and records permit, these records are often incomplete, and it is not possible to guarantee that no subsidence hazard exists for properties which are the subject of this report. Our plans and records are updated whenever new information becomes available.
The information acquired by the user is as accurate as our records permit, however, no warranty or guarantee is given, and no responsibility arising therefrom is accepted by the State of Victoria or the Department, its officers, agents or delegates. The Department makes no representation as to the hazards on the land.

Mine Overlaps:

Current Tenement Overlaps:

Expired Tenement Overlaps:

SEARCH FOR MINE HAZARD
Form No. 692

18 Sep 2015

Selection:
Allotment: 21
Section: 24
Parish: WARRENHEIP

It is advised that:
Our records do not show the presence of any mine workings on this site, and it lies outside any known mined area.

Contact Department of Primary Industries for information:
GIS Officer
Minerals & Petroleum Business Centre
Phone: 9658 4456
Fax: 9658 4460
E-mail: mbc.info@dpi.vic.gov.au

NOTE: Although mine subsidence hazard advice is given as accurately as our plans and records permit, these records are often incomplete, and it is not possible to guarantee that no subsidence hazard exists for properties which are the subject of this report. Our plans and records are updated whenever new information becomes available.
The information acquired by the user is as accurate as our records permit, however, no warranty or guarantee is given, and no responsibility arising therefrom is accepted by the State of Victoria or the Department, its officers, agents or delegates. The Department makes no representation as to the hazards on the land.

Mine Overlaps:

Current Tenement Overlaps:

Expired Tenement Overlaps:

APPENDIX viii

ANALYTICAL LABORATORY RESULTS

Groundswell Laboratories

"A New Force in Analytical Testing"

CERTIFICATE OF ANALYSIS

Client Name :	Provincial Geotechnical	**Groundswell Batch # :**	GS15572
Client Address :	91 Nicholas Street, Newtown, Victoria, 3220	**Project Name :**	Woodmans Hill Rezoning
Client Phone # :	03 5223 1566	**Project # :**	Not Detailed
Client Fax # :	03 5224 4560	**Date Samples Received :**	25/09/2015
Project Manager :	Andrew Redman	**Sample Matrix :**	Soil
E-mail :	admin@pgvic.com.au	**Sample # Submitted :**	51
Project Sample Manager :	Andrew Redman	**Groundswell Quote # :**	Verbal
E-mail :	admin@pgvic.com.au	**Date CofA Issued :**	1/10/2015

Paul Woodward
Managing Director
paul@groundswellabs.com.au

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory 17067

Accredited for compliance with ISO/IEC 17025

Reference AF56 Rev9 Date Issued : 3/11/2010

Analytical Results

Client Sample ID				Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	Sample 10
Laboratory Sample Number				GS15572-1	GS15572-2	GS15572-3	GS15572-4	GS15572-5	GS15572-6	GS15572-7	GS15572-8	GS15572-9	GS15572-10
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	Literature Reference	Units	LOR										
Moisture	NEPM 6.1	%	0.1	14.6	13.4	18.9	14.9	15.1	15.6	16.4	14.7	13.4	13.2
Metals													
Arsenic	EPA 200.2	mg/kg	1	12	8	5	10	13	7	8	9	<1	6
Cadmium	EPA 200.2	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	EPA 200.2	mg/kg	1	21	16	10	14	14	14	13	16	16	14
Copper	EPA 200.2	mg/kg	1	34	22	12	32	42	3	28	23	14	28
Lead	EPA 200.2	mg/kg	1	61	21	16	36	41	6	28	24	<1	24
Mercury	EPA 200.2	mg/kg	0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	EPA 200.2	mg/kg	1	29	11	10	12	9	7	8	16	70	25
Zinc	EPA 200.2	mg/kg	1	183	35	46	33	37	16	24	44	52	64

Reference AF56.Rev4 Date Issued : 3/11/2010

Comments :

1- All metals samples prepared as per NEPC Measure 1999 Schedule B (3), involving air-drying, grinding and screening to -2mm.

2 - Samples digested by EPA Method 200.2 prior to the analaysis of metals

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : paul@groundswelllabs.com.au

Analytical Results

Client Sample ID				Sample 11	Sample 12	Sample 13	Sample 14	Sample 15	Sample 16	Sample 17	Sample 18	Sample 19	Sample 20
Laboratory Sample Number				GS15572-11	GS15572-12	GS15572-13	GS15572-14	GS15572-15	GS15572-16	GS15572-17	GS15572-18	GS15572-19	GS15572-20
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	**Literature Reference**	**Units**	**LOR**										
Moisture	NEPM 6.1	%	0.1	17.6	17.2	13.2	14.8	15	13.7	14.2	17.2	14.6	15.5
Metals													
Arsenic	EPA 200.2	mg/kg	1	9	8	5	11	10	15	12	14	8	9
Cadmium	EPA 200.2	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Chromium	EPA 200.2	mg/kg	1	5	5	13	6	6	5	6	4	5	5
Copper	EPA 200.2	mg/kg	1	33	42	21	28	27	51	64	53	33	34
Lead	EPA 200.2	mg/kg	1	29	38	17	25	26	37	49	41	26	25
Mercury	EPA 200.2	mg/kg	0.1	0.1	0.1	<0.1	0.1	0.1	0.2	0.2	0.2	0.1	<0.1
Nickel	EPA 200.2	mg/kg	1	3	3	27	3	3	3	3	2	2	2
Zinc	EPA 200.2	mg/kg	1	34	44	60	37	35	34	23	20	15	20

Reference AF56.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : paul@groundswelllabs.com.au

Analytical Results

Client Sample ID				Sample 21	Sample 22	Sample 23	Sample 24	Sample 25	Sample 26	Sample 27	Sample 28	Sample 29	Sample 30
Laboratory Sample Number				GS15572-21	GS15572-22	GS15572-23	GS15572-24	GS15572-25	GS15572-26	GS15572-27	GS15572-28	GS15572-29	GS15572-30
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	**Literature Reference**	**Units**	**LOR**										
Moisture	NEPM 6.1	%	0.1	14.2	14.4	13.9	15.2	12.6	13.3	14.6	14.1	13.2	16
Metals													
Arsenic	EPA 200.2	mg/kg	1	10	5	6	5	9	6	12	11	7	8
Cadmium	EPA 200.2	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	EPA 200.2	mg/kg	1	5	5	6	5	6	5	5	4	5	5
Copper	EPA 200.2	mg/kg	1	44	31	31	34	39	29	41	37	26	36
Lead	EPA 200.2	mg/kg	1	34	21	21	25	33	19	35	31	18	36
Mercury	EPA 200.2	mg/kg	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2
Nickel	EPA 200.2	mg/kg	1	2	2	2	2	2	2	2	1	2	4
Zinc	EPA 200.2	mg/kg	1	19	44	45	46	17	14	17	17	12	22

Reference AF56.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : paul@groundswelllabs.com.au

Analytical Results

Client Sample ID				Sample 31	Sample 32	Sample 33	Sample 34	Sample 35	Sample 36	Sample 37	Sample 38	Sample 39	Sample 40
Laboratory Sample Number				GS15572-31	GS15572-32	GS15572-33	GS15572-34	GS15572-35	GS15572-36	GS15572-37	GS15572-38	GS15572-39	GS15572-40
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	Literature Reference	Units	LOR										
Moisture	NEPM 6.1	%	0.1	15.5	16.9	12.2	21.7	19.7	13.5	17.5	15.8	17.0	16.5
Metals													
Arsenic	EPA 200.2	mg/kg	1	6	5	3	7	6	13	15	5	5	5
Cadmium	EPA 200.2	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1
Chromium	EPA 200.2	mg/kg	1	5	4	4	5	6	4	18	6	7	8
Copper	EPA 200.2	mg/kg	1	26	40	25	36	56	21	6	7	8	9
Lead	EPA 200.2	mg/kg	1	19	27	21	42	48	14	10	8	10	9
Mercury	EPA 200.2	mg/kg	0.1	0.1	0.1	<0.1	0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	EPA 200.2	mg/kg	1	3	2	4	3	3	1	9	4	4	6
Zinc	EPA 200.2	mg/kg	1	84	48	58	19	50	10	14	73	82	81

Reference AFS6.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : paul@groundswelllabs.com.au

Analytical Results

Client Sample ID				Sample 41	Sample 42	Sample 43	Sample 44	Sample 45	Sample 46	Sample 47	Sample 48	Sample 49	Sample 50
Laboratory Sample Number				GS15572-41	GS15572-42	GS15572-43	GS15572-44	GS15572-45	GS15572-46	GS15572-47	GS15572-48	GS15572-49	GS15572-50
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	Literature Reference	Units	LOR										
Moisture	NEPM 6.1	%	0.1	15.9	17.0	16.2	14.4	14.3	15.8	14.0	16.5	15.0	16.0
Metals													
Arsenic	EPA 200.2	mg/kg	1	3	3	3	4	2	3	3	2	3	3
Cadmium	EPA 200.2	mg/kg	0.1	0.1	0.1	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	EPA 200.2	mg/kg	1	7	6	9	9	5	6	6	4	5	4
Copper	EPA 200.2	mg/kg	1	7	7	7	12	6	6	7	9	8	8
Lead	EPA 200.2	mg/kg	1	9	6	6	16	6	6	5	5	4	4
Mercury	EPA 200.2	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	EPA 200.2	mg/kg	1	5	3	3	18	4	3	3	3	2	2
Zinc	EPA 200.2	mg/kg	1	68	74	80	104	60	61	72	55	45	56

Reference AP56.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : paul@groundswelllabs.com.au

Analytical Results

Client Sample ID				Sample 51
Laboratory Sample Number				GS15572-51
Date Sampled				25/09/2015
Analytes	**Literature Reference**	**Units**	**LOR**	
Moisture	NEPM 6.1	%	0.1	17.7
Metals				
Arsenic	EPA 200.2	mg/kg	1	5
Cadmium	EPA 200.2	mg/kg	0.1	0.1
Chromium	EPA 200.2	mg/kg	1	6
Copper	EPA 200.2	mg/kg	1	7
Lead	EPA 200.2	mg/kg	1	11
Mercury	EPA 200.2	mg/kg	0.1	<0.1
Nickel	EPA 200.2	mg/kg	1	2
Zinc	EPA 200.2	mg/kg	1	64

Reference AF56.Rev4 Date Issued : 3/11/2010

Quality Control Report

Client Sample ID			Sample 1			Sample 10					Sample 20				
Laboratory Sample Number			GS15572-1			GS15572-10					GS15572-20				
QC Parameter			Matrix Spike			Laboratory Duplicate					Laboratory Duplicate				
			Matrix Spike (%R)	Recovery Limit Acceptance Criteria(%)	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
Analytes	**Units**	**LOR**													
Moisture	%	0.1	NA	NA	NA	13.2	15.6	17%	≤20%	Pass	15.5	15.4	<1%	≤20%	Pass
Metals															
Arsenic	mg/kg	1	85%	80-120%	Pass	6	7	15%	No Limit	Pass	9	9	<1%	No Limit	Pass
Cadmium	mg/kg	0.1	88%	80-120%	Pass	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Chromium	mg/kg	1	78%	80-120%	Fail	14	13	7%	≤15%	Pass	5	5	<1%	No Limit	Pass
Copper	mg/kg	1	74%	80-120%	Fail	28	27	4%	≤15%	Pass	34	34	<1%	≤15%	Pass
Lead	mg/kg	1	90%	80-120%	Pass	24	24	<1%	≤15%	Pass	25	24	0	≤15%	Pass
Mercury	mg/kg	0.1	---	80-120%	---	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Nickel	mg/kg	1	79%	80-120%	Fail	25	24	4%	≤15%	Pass	2	2	<1%	No Limit	Pass
Zinc	mg/kg	1	87%	80-120%	Pass	64	60	6%	≤15%	Pass	20	17	16%	≤15%	Fail

Reference AF56.Rev4 Date Issued : 3/11/2010

Comments :

1- NA = Not Applicable

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

Quality Control Report

Client Sample ID			Sample 21			Sample 30					Sample 40				
Laboratory Sample Number			GS15572-21			GS15572-30					GS15572-40				
QC Parameter			Matrix Spike			Laboratory Duplicate					Laboratory Duplicate				
			Matrix Spike (%R)	Recovery Limit Acceptance Criteria(%)	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
Analytes	**Units**	**LOR**													
Moisture	%	0.1	NA	NA	NA	16.0	15.0	6%	≤20%	Pass	16.5	16.4	<1%	≤20%	Pass
Metals															
Arsenic	mg/kg	1	88%	80-120%	Pass	8	21	90%	No Limit	Pass	5	6	18%	No Limit	Pass
Cadmium	mg/kg	0.1	102%	80-120%	Pass	<0.1	<0.1	NA	No Limit	Pass	0.1	0.2	66%	No Limit	Pass
Chromium	mg/kg	1	92%	80-120%	Pass	5	6	18%	No Limit	Pass	8	8	<1%	No Limit	Pass
Copper	mg/kg	1	87%	80-120%	Pass	36	34	6%	≤15%	Pass	9	9	<1%	No Limit	Pass
Lead	mg/kg	1	94%	80-120%	Pass	36	33	9%	≤15%	Pass	9	10	10%	No Limit	Pass
Mercury	mg/kg	0.1	---	80-120%	---	0.2	0.2	<1%	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Nickel	mg/kg	1	95%	80-120%	Pass	4	4	<1%	No Limit	Pass	6	5	18%	No Limit	Pass
Zinc	mg/kg	1	108%	80-120%	Pass	22	24	9%	≤15%	Pass	81	84	4%	≤15%	Pass

Reference AF56.Rev4 Date Issued : 3/11/2010

Comments :

1- NA = Not Applicable

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

Quality Control Report

Client Sample ID			Sample 50									
Laboratory Sample Number			GS15572-50									
QC Parameter			Laboratory Duplicate					Method Blank		Laboratory Control Standard (LCS)		
			Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Method Blank	Within GSL Acceptance Criteria (<LOR) (Pass/Fail)	LCS (%R)	LCS Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
Analytes	**Units**	**LOR**										
Moisture	%	0.1	16.0	15.9	<1%	≤20%	Pass	NA	NA	NA	NA	NA
Metals												
Arsenic	mg/kg	1	3	2	40%	No Limit	Pass	<1	Pass	99%	85-115%	Pass
Cadmium	mg/kg	0.1	<0.1	0.2	NA	No Limit	Pass	<0.1	Pass	95%	85-115%	Pass
Chromium	mg/kg	1	4	4	<1%	No Limit	Pass	<1	Pass	100%	85-115%	Pass
Copper	mg/kg	1	8	8	<1%	No Limit	Pass	<1	Pass	91%	85-115%	Pass
Lead	mg/kg	1	4	4	<1%	No Limit	Pass	<1	Pass	93%	85-115%	Pass
Mercury	mg/kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	Pass	94%	85-115%	Pass
Nickel	mg/kg	1	2	2	<1%	No Limit	Pass	<1	Pass	100%	85-115%	Pass
Zinc	mg/kg	1	56	54	4%	≤15%	Pass	<1	Pass	99%	85-115%	Pass

Reference AF56.Rev4 Date Issued : 3/11/2010

Comments :

1- NA = Not Applicable

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

Technical Holding Time Compliance Report

Client Sample ID			All Samples									
Laboratory Sample Number			All Samples									
Date Sampled			25/09/2015									
Analyte	THT Parameters	THT (Days)										
Moisture	Date Analysed	14	25/09/2015									
	Analysis Time (Days)		<1									
	THT Compliant		Yes									
Metals	Date Digested	180	30/09/2015									
	Analysis Time (Days)		5									
	THT Compliant		Yes									

Reference AF56.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Results

Client Sample ID				Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	Sample 10
Laboratory Sample Number				GS15572-1	GS15572-2	GS15572-3	GS15572-4	GS15572-5	GS15572-6	GS15572-7	GS15572-8	GS15572-9	GS15572-10
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	Literature Reference	Units	LOR										
Moisture	NEPM 6.1	%	0.1	14.6	13.4	18.9	14.9	15.1	15.6	16.4	14.7	13.4	13.2
OCP													
Alpha-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-I	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDE	GSLS	mg/Kg	0.1	*0.2*	*0.2*	*0.1*	*0.3*	*0.2*	*0.1*	*0.2*	*0.2*	*<0.1*	*0.2*
Dieldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDD	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-II	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin aldehyde	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulfate	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDT	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin ketone	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate													
Nitrobenzene-d5	GSLS	%	1	91%	102%	112%	115%	114%	100%	115%	107%	101%	106%

Reference AF55.Rev4 Date Issued : 3/11/2010

Comments :

1- OCP results reported on a dry weight basis

OCP Results

Client Sample ID				Sample 11	Sample 12	Sample 13	Sample 14	Sample 15	Sample 16	Sample 17	Sample 18	Sample 19	Sample 20
Laboratory Sample Number				GS15572-11	GS15572-12	GS15572-13	GS15572-14	GS15572-15	GS15572-16	GS15572-17	GS15572-18	GS15572-19	GS15572-20
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	**Literature Reference**	**Units**	**LOR**										
Moisture	NEPM 6.1	%	0.1	17.6	17.2	13.2	14.8	15	13.7	14.2	17.2	14.6	15.5
OCP													
Alpha-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-I	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDE	GSLS	mg/Kg	0.1	*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	*0.6*	*0.6*	*0.5*	*0.4*	*0.3*
Dieldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDD	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	*0.1*	*0.1*	<0.1	<0.1	<0.1
Endosulfan-II	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin aldehyde	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulfate	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDT	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin ketone	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate													
Nitrobenzene-d5	GSLS	%	1	114%	100%	96%	96%	97%	105%	97%	107%	102%	100%

Reference AF55.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Results

Client Sample ID				Sample 21	Sample 22	Sample 23	Sample 24	Sample 25	Sample 26	Sample 27	Sample 28	Sample 29	Sample 30
Laboratory Sample Number				GS15572-21	GS15572-22	GS15572-23	GS15572-24	GS15572-25	GS15572-26	GS15572-27	GS15572-28	GS15572-29	GS15572-30
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	**Literature Reference**	**Units**	**LOR**										
Moisture	NEPM 6.1	%	0.1	14.2	14.4	13.9	15.2	12.6	13.3	14.6	14.1	13.2	16
OCP													
Alpha-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-I	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDE	GSLS	mg/Kg	0.1	***0.4***	***0.3***	***0.3***	***0.4***	***0.2***	***0.2***	***0.3***	***0.2***	***0.2***	***0.6***
Dieldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDD	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-II	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin aldehyde	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulfate	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDT	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin ketone	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate													
Nitrobenzene-d5	GSLS	%	1	96%	100%	107%	94%	90%	101%	104%	84%	98%	106%

Reference AFSS.Rev4 Date Issued : 3/11/2010

OCP Results

Client Sample ID				Sample 31	Sample 32	Sample 33	Sample 34	Sample 35	Sample 36	Sample 37	Sample 38	Sample 39	Sample 40
Laboratory Sample Number				GS15572-31	GS15572-32	GS15572-33	GS15572-34	GS15572-35	GS15572-36	GS15572-37	GS15572-38	GS15572-39	GS15572-40
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	Literature Reference	Units	LOR										
Moisture	NEPM 6.1	%	0.1	15.5	16.9	12.2	21.7	19.7	13.5	17.5	15.8	17	16.5
OCP													
Alpha-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-I	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDE	GSLS	mg/Kg	0.1	***0.2***	***0.2***	***0.1***	***0.6***	***0.6***	***0.3***	***0.1***	***0.2***	***0.3***	***0.3***
Dieldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDD	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	***0.1***	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-II	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin aldehyde	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulfate	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDT	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin ketone	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate													
Nitrobenzene-d5	GSLS	%	1	90%	113%	102%	106%	121%	89%	82%	105%	96%	104%

Reference AF55.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Results

Client Sample ID				Sample 41	Sample 42	Sample 43	Sample 44	Sample 45	Sample 46	Sample 47	Sample 48	Sample 49	Sample 50
Laboratory Sample Number				GS15572-41	GS15572-42	GS15572-43	GS15572-44	GS15572-45	GS15572-46	GS15572-47	GS15572-48	GS15572-49	GS15572-50
Date Sampled				25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015	25/09/2015
Analytes	Literature Reference	Units	LOR										
Moisture	NEPM 6.1	%	0.1	15.9	17.0	16.2	14.4	14.3	15.8	14.0	16.5	15.0	16.0
OCP													
Alpha-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gamma-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta-BHC	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-I	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-Chlordane	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDE	GSLS	mg/Kg	0.1	***0.2***	***0.2***	***0.2***	***0.3***	***0.2***	***0.3***	***0.2***	***0.2***	***0.1***	***0.2***
Dieldrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDD	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan-II	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin aldehyde	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulfate	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4-DDT	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin ketone	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	GSLS	mg/Kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate													
Nitrobenzene-d5	GSLS	%	1	112%	103%	95%	90%	91%	111%	80%	108%	93%	106%

Reference AFSS.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Results

Client Sample ID				Sample 51									
Laboratory Sample Number				GS15572-51									
Date Sampled				25/09/2015									
Analytes	**Literature Reference**	**Units**	**LOR**										
Moisture	NEPM 6.1	%	0.1	17.7									
OCP													
Alpha-BHC	GSLS	mg/Kg	0.1	<0.1									
Gamma-BHC	GSLS	mg/Kg	0.1	<0.1									
Beta-BHC	GSLS	mg/Kg	0.1	<0.1									
Delta-BHC	GSLS	mg/Kg	0.1	<0.1									
Heptachlor	GSLS	mg/Kg	0.1	<0.1									
Aldrin	GSLS	mg/Kg	0.1	<0.1									
Heptachlor epoxide	GSLS	mg/Kg	0.1	<0.1									
trans-Chlordane	GSLS	mg/Kg	0.1	<0.1									
Endosulfan-I	GSLS	mg/Kg	0.1	<0.1									
cis-Chlordane	GSLS	mg/Kg	0.1	<0.1									
4,4-DDE	GSLS	mg/Kg	0.1	0.2									
Dieldrin	GSLS	mg/Kg	0.1	<0.1									
Endrin	GSLS	mg/Kg	0.1	<0.1									
4,4-DDD	GSLS	mg/Kg	0.1	<0.1									
Endosulfan-II	GSLS	mg/Kg	0.1	<0.1									
Endrin aldehyde	GSLS	mg/Kg	0.1	<0.1									
Endosulfan Sulfate	GSLS	mg/Kg	0.1	<0.1									
4,4-DDT	GSLS	mg/Kg	0.1	<0.1									
Endrin ketone	GSLS	mg/Kg	0.1	<0.1									
Methoxychlor	GSLS	mg/Kg	0.1	<0.1									
Surrogate													
Nitrobenzene-d5	GSLS	%	1	94%									

Reference AF55.Rev4 Date issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Quality Control Report

Client Sample ID			Sample 10					Sample 20				
Laboratory Sample Number			GS15572-10					GS15572-20				
QC Parameter			Laboratory Duplicate					Laboratory Duplicate				
			Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
OCP	**Units**	**LOR**										
Alpha-BHC	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Gamma-BHC	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Beta-BHC	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Delta-BHC	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Heptachlor	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Aldrin	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Heptachlor epoxide	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
trans-Chlordane	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Endosulfan-I	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
cis-Chlordane	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
4,4-DDE	mg/Kg	0.1	***0.2***	***0.2***	<1%	≤30%	Pass	***0.3***	***0.3***	<1%	≤30%	Pass
Dieldrin	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Endrin	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
4,4-DDD	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Endosulfan-II	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Endrin aldehyde	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Endosulfan Sulfate	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
4,4-DDT	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Endrin ketone	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Methoxychlor	mg/Kg	0.1	<0.1	<0.1	NA	No Limit	Pass	<0.1	<0.1	NA	No Limit	Pass
Surrogate												
Nitrobenzene-d5	%	1	106%	105%	---	---	---	100%	102%	---	---	---

Reference AF55.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Quality Control Report

Client Sample ID			Sample 30					Sample 40				
Laboratory Sample Number			GS15572-30					GS15572-40				
QC Parameter			Laboratory Duplicate					Laboratory Duplicate				
			Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
OCP	**Units**	**LOR**										
Alpha-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Gamma-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Beta-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Delta-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Heptachlor	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Aldrin	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Heptachlor epoxide	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
trans-Chlordane	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Endosulfan-I	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
cis-Chlordane	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
4,4-DDE	mg/Kg	0.1	***0.6***	***0.5***	<1%	NoLimit	Pass	***0.3***	***0.3***	<1%	NoLimit	Pass
Dieldrin	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Endrin	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
4,4-DDD	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Endosulfan-II	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Endrin aldehyde	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Endosulfan Sulfate	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
4,4-DDT	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Endrin ketone	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Methoxychlor	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	<0.1	NA	NoLimit	Pass
Surrogate												
Nitrobenzene-d5	%	1	106%	89%	---	---	---	104%	111%	---	---	---

Reference AF55.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Quality Control Report

Client Sample ID			Sample 50									
Laboratory Sample Number			GS15572-50									
QC Parameter			Laboratory Duplicate					Method Blank		Laboratory Control Standard (LCS)		
			Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Method Blank	Within GSL Acceptance Criteria (<LOR) (Pass/Fail)	LCS (%R)	LCS Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
OCP	**Units**	**LOR**										
Alpha-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	100%	70-130%	Pass
Gamma-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Beta-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Delta-BHC	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Heptachlor	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Aldrin	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	101%	70-130%	Pass
Heptachlor epoxide	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
trans-Chlordane	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	96%	70-130%	Pass
Endosulfan-I	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
cis-Chlordane	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
4,4-DDE	mg/Kg	0.1	*0.2*	*0.2*	<1%	NoLimit	Pass	<0.1	Pass	102%	70-130%	Pass
Dieldrin	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	99%	70-130%	Pass
Endrin	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
4,4-DDD	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	103%	70-130%	Pass
Endosulfan-II	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Endrin aldehyde	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Endosulfan Sulfate	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
4,4-DDT	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	91%	70-130%	Pass
Endrin ketone	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Methoxychlor	mg/Kg	0.1	<0.1	<0.1	NA	NoLimit	Pass	<0.1	Pass	---	70-130%	---
Surrogate												
Nitrobenzene-d5	%	1	106%	94%	---	---	---	123%	---	101%	---	---

Reference AF55.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

OCP Technical Holding Time Compliance

Client Sample ID			All Samples
Laboratory Sample Number			All Samples
Date Sampled			25/09/2015
Analyte	THT Parameters	THT (Days)	
OCP	Extraction Date	14	28/09/2015
	Analysis Time (Days)		3
	THT Compliant		Yes

Reference AF55.Rev4 Date Issued : 3/11/2010

Groundswell Laboratories Pty Ltd ABN 24 133 248 923
116 Moray Street, South Melbourne, Victoria, 3205 Ph (03) 8669 1450 Fax (03) 8669 1451 E-mail : admin@groundswelllabs.com.au

APPENDIX ix

STATEMENT OF LIMITATIONS

STATEMENT OF LIMITATIONS

Scope of Services

This report has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Provincial Geotechnical Pty. Ltd. In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

Reliance on Data

In preparing the report, Provincial Geotechnical Pty. Ltd. has relied upon data, surveys, analyses, designs, plans and other information provided by the Client. Except as otherwise stated in the report, Provincial Geotechnical Pty. Ltd. has not verified the accuracy of completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report are based in whole or part of the data, those conclusions are contingent upon the accuracy and completeness of the data. Provincial Geotechnical Pty. Ltd. will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Provincial Geotechnical Pty. Ltd.

Environmental Conclusions

In accordance with the scope of services, Provincial Geotechnical Pty. Ltd. has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report.

The nature and extent of monitoring and/or testing conducted is described in the report. No representations or warranties are made by Provincial Geotechnical Pty. Ltd. concerning the accuracy of completeness of conclusions with respect to the nature of quality of soil and water, or any other substance on the site except to the extent disclosed in the analytical data based upon Provincial Geotechnical Pty. Ltd. monitoring and/or testing as identified in the report.

Within the limitations imposed by the scope of services, monitoring, testing and sampling and the preparation of this report have been undertaken and performed in a professional manner, in accordance with general accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

CFA Fire Safety
Fire & Emergency Management
Email: firesafetyreferrals@cfa.vic.gov.au
Telephone: 03 9262 8578

Our Ref: **15000-69774-100597**

16 June 2020

Kathy Versteegen
Kaufmann Property Consultants Pty Ltd

(Kpc@Kaufmannpc.com.au)

Dear Kathy

LETTER OF ADVICE

PROPOSED REZONING OF LAND FROM RURAL LIVING ZONE TO MIXED USE ZONE

C/A 21 Section 24 – Kokoda Street Brown Hill
C/A 20 Section 24 – 27 Brewery Tap Road Brown Hill
Lot 2 PS629326M - 27 Brewery Tap Road Brown Hill
Lot 1 PS629326M – 65 Orchard Lane Brown Hill

CFA has reviewed the available information in relation to the above properties, including Planning Property Reports, Zoning and Planning Overlays, relevant to a potential rezoning of the subject land from Rural Living Zone to Mixed Use Zone.

CFA is satisfied that that a Bushfire Planning Assessment for the subject land is not required at this time.

If you require further assistance on this matter, please contact me on 0419 489 491.

Yours sincerely

Michael Boatman
Acting Deputy Chief Officer
Regional Director
CFA West Region

6.2. PLP2020117 1018-1022 GREVILLEA ROAD WENDOUREE COUNCIL REPORT

Division: Infrastructure and Environment
Director: Darren Sadler
Author/Position: Jane Archer - Statutory Planner

RECOMMENDATION

The Planning Special Committee resolves to:

Issue a Notice of Decision to Grant a Planning Permit PLP/2020/117 for the land located at 1018-1022 Grevillea Road, Wendouree for the Use and Development of a Childcare Centre subject to the following Conditions:

1. **Amended Plans Required**

   Before the use/development starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will form part of the permit. The plans must be drawn to scale with dimensions and emailed to info@ballarat.vic.gov.au with the planning reference number. The plans must be generally in accordance with those prepared by Tony De Jong Drafting Pty Ltd dated 19 February 2020 but modified to show:

   (a) The location, height and design of all plant equipment shown on the roof plan and all elevation plans. The location and design must accord with the acoustic report required by Condition 9;
   (b) Nomination of entry/exit signage with entry to the internal car park from Grevillea Road with exit only to Webconna Parade;
   (c) Details and specifications of any noise attenuation measures as required by the Acoustic Report (to be provided by Condition 9);
   (d) Detailed material and finishes schedule as required by Condition 2;
   (e) An acoustic report as required by Condition 9;
   (f) A landscape plan as required by Condition 3; and
   (g) A Waste Management Plan as required by Condition 18.

   Unless otherwise approved in writing by the Responsible Authority, all buildings and works are to be constructed and or undertaken in accordance with the endorsed plans to the satisfaction of the Responsible Authority prior to the commencement of the use.

2. **Materials & Colour Details**

   Before the development starts, a schedule of construction materials, external finishes and colours must be submitted to and approved by the Responsible Authority. When approved, the schedule will be approved to form part of the permit

3. **Landscape Plan**
   Prior to the commencement of any works, a landscape plan must be submitted to and approved by the Responsible Authority. When approved the plan will form part of the permit.

The landscape plan must include:

(a) a survey (including botanical names) of all existing vegetation to be retained and/or removed;
(b) details of surface finishes of pathways and driveways;
(c) street trees in accordance with Condition 4;
(d) a planting schedule of all proposed trees, shrubs and ground covers, including botanical names, common names, pot sizes, size at planting, sizes at maturity, and quantities of each plant.

All landscaping works must be carried out in accordance with the approved landscape plan and Council's Landscape Design Manual (August 2012).

4. <u>Street Tree Provision</u>

Prior to any works commencing on site, the permit holder shall prepare a plan for the provision of street trees within the road reserve adjacent to and within the proposed development at locations approved by the Responsible Authority. The street tree locations must accord with the requirements of Section 5 of Council's Landscape Design Manual (August 2012).

Prior to the occupation of the development, the street trees shall be planted within the road reserve in accordance with the approved plan. The trees shall be of semi-mature age and approved species and supplied, planted and maintained in accordance with the Responsible Authority's Tree Planting Guidelines. The permit holder is to provide a bond in the amount of $500 per street tree. The tree(s) shall be maintained for a period of eighteen (18) months from planting to the satisfaction of the Responsible Authority. The bond will be returned eighteen (18) months after completion of planting and maintenance works to the satisfaction of the Responsible Authority.
Or
Prior to any works commencing on site, the permit holder must pay Council $750 per street tree for their provision and eighteen (18) month maintenance period.
Note: For information regarding suitable street tree species see Council's adopted Urban Design Manual Part B: Landscape Character Area Guidelines (Version 1.0, 2012), available on Council's website.

5. <u>Completion and Maintenance of Landscaping Works</u>

Prior to the use of the site commencing all landscape works forming part of the approved Landscape Plans must be completed to the satisfaction of the Responsible Authority. The landscaping shown on the approved landscape plan must be maintained to the satisfaction of the Responsible Authority for 18 months from the practical completion of the landscaping. During this period, any dead, diseased or damaged plants or landscaped areas are to be repaired or replaced during the period of maintenance and must not be deferred until the completion of the maintenance period.

6. <u>Limit on Number of Childcare Places</u>

Without the prior written consent of the Responsible Authority, not more than 100 children may be present on the premises at any one time.

7. Hours of Operation

The use may operate only between the hours of 8.00am to 6.00pm Monday to Friday without the further written consent of the Responsible Authority.

8. Regulation of Delivery Times

Deliveries to and from the site (including waste collection) must only take place between:
(a) 8.00 am and 8.00 pm Monday to Friday
All ancillary motors or trucks are to be turned off whilst picking up or dropping off stock/materials

9. Acoustic Assessment

Before the development starts, an acoustic assessment of the use/development must be submitted to and be approved in writing by the Responsible Authority. The Acoustic Assessment must be prepared by a suitably qualified acoustic engineer and must detail recommended measures and/or treatments to ensure that noise emissions from the development do not impact adversely on the amenity of the adjoining residential properties. The development must be constructed in accordance with the approved acoustic assessment to the satisfaction of the Responsible Authority.

10. Lighting

External lighting must be designed, baffled and located so as to prevent any adverse effect on adjoining land to the satisfaction of the Responsible Authority.

11. Amenity

The use and development must be managed so that the amenity of the area is not detrimentally affected, through the:

(a) transport of materials, goods or commodities to or from the land;
(b) appearance of any building, works or materials;
(c) emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, wastewater, waste products, grit or oil;
(d) presence of vermin or otherwise;

In the event of any nuisance being caused to the neighborhood by activities related to the use and development the Responsible Authority may direct, in writing, such actions or works, as deemed appropriate, to eliminate or mitigate such nuisance be undertaken.

12. Vehicle Access

Prior to the commencement of the use, vehicle access to the site must be constructed in accordance with plans and specifications set under an approved Vehicle Crossing Permit to the satisfaction of the Responsible Authority.

Note: The construction or altering of a vehicle crossing, footpath and/or any other works or alterations within a road reserve or any other Council asset may require either a Crossover Permit (which includes a driveway and new crossover), a Road Opening Permit (ie. opening up a road for installation of infrastructure), Asset Protection Permit

(Temporary Crossing Permit i.e. providing for temporary site access) or other approval to be obtained from the City of Ballarat. This Planning Permit does not constitute such approval. Failure to obtain an appropriate permit or damaging Council infrastructure, including footpaths, kerbs, drains, street trees, nature strips etc. or failing to remove redundant crossings and reinstate the kerb, drain, footpath, nature strip or other part of the road is a breach of the Ballarat City Council Community Local Laws (10 Penalty Units). For further information, please contact Council's Asset Protection Officer in relation to Road Opening or Asset Protection permits and Council's Infrastructure Planning & Development Unit via Council's Customer Service Officers and the Arborist relating to Street trees.

13. Internal Access Ways and Car Parking

Prior to the use hereby approved commencing, the areas set aside for the parking of vehicles and access lanes as shown on the approved plans must to the satisfaction of the Responsible Authority be:

(a) Constructed with a concrete pavement or flexible granular pavement with asphalt surfacing;
(b) Properly formed to such levels that they can be used in accordance with the plans;
(c) Drained;
(d) Line-marked to indicate each car space and all access lanes;
(e) Clearly marked to show the direction of traffic along access lanes and driveways.

Car spaces and access lanes must be maintained and kept available for these purposes at all times.

Prior to the occupation of the development/use hereby approved commencing, all works shall be completed in accordance with plans submitted to and approved by the Responsible Authority.

14. Number of Car Spaces Required

No fewer than 26 car spaces must be provided on the land for the use, including 1 space clearly marked for use by disabled persons and designed in accordance with Australian Standard AS 2890.6 – 2009.

15. Directional Sign

Signage to the satisfaction of the Responsible Authority must be provided directing drivers to the areas set aside for car parking and must be located at the Grevillea Road entrance and maintained to the satisfaction of the Responsible Authority. The area of each sign must not exceed 0.3 square metres.

16. Protective Kerbs

Protective kerbs to a minimum height of 150mm must be provided to the satisfaction of the Responsible Authority to prevent damage to fences or landscaped areas.

17. Loading/Unloading

The loading and unloading of vehicles and the delivery of goods to and from the premises must at all times be conducted entirely within the site and/or the

designated loading bay hereby approved and must not disrupt the circulation and parking of vehicles on the land or street network to the satisfaction of the Responsible Authority.

All Vehicle entry to and egress from the site shall be in a forward direction.

18. Waste Management Plan

Prior to the development commencing, a Waste Management Plan must be prepared to the satisfaction of the Responsible Authority and endorsed as part of this permit. The Plan must detail:

a) The location and space allocated for storage of waste and recyclable materials, bins and containers;
b) The type of waste and recyclable materials, bins and containers;
c) The garbage and recycling equipment (e.g. vehicles and lifting equipment) to be used;
d) The frequency and timing of waste collection;
e) The path of access for both users and collection vehicles;
f) Demonstrate how all collection vehicles can enter and exit the premises in a forward direction. Vehicles must not reverse from the site at any time; and
g) Measures to manage and minimise noise, odour and litter.

Waste management must be undertaken in accordance with the approved Waste Management Plan to the satisfaction of the Responsible Authority. The endorsed Waste Management Plan shall have ongoing force or effect unless otherwise approved in writing by the Responsible Authority.

19. Footpath Construction

A footpath shall be constructed along the frontage of the lot on Grevillea Road and Webbcona Parade and connect to the existing footpaths on both sides.

Prior to works commencing on site, plans must be submitted to and approved by the Responsible Authority. The plans must accord with the Infrastructure Design Manual and Council's standard drawings. All works must be constructed in accordance with the approved plans and completed to a standard satisfactory to the Responsible Authority prior to the commencement of the development/use hereby approved.

20. Naturestrips

Prior to occupation of the development/the use hereby approved commencing the naturestrip fronting the development shall be constructed in accordance with levels and specifications submitted to and approved by the Responsible Authority.
The works shall include:
(a) The reshaping of the naturestrip.
(b) Topdressing the area with a 75 millimetre rolled depth of good quality loamy topsoil free of any weed or seed.
(c) Seeding the area with an appropriate seed mix.
All works shall be completed in accordance with Council's Landscape Design Manual and shall be to the satisfaction of the Responsible Authority prior to the occupation of the development/use hereby approved commencing.

21. Contamination Assessment

Prior to works commencing on site and the issue of a Building Permit, a Preliminary Site Investigation Report prepared in accordance with AS4482.1-2005 shall be submitted to the Responsible Authority.

Should the Preliminary Site Investigation Report indicate that contaminating activities took place on the site or that contaminants are present, a Detailed Site Investigation in accordance with AS4482.1–2005 shall be undertaken. The Detailed Site Investigation report shall include any recommended remediation works.

If the report is accepted by the Responsible Authority, the remediation works shall be completed by the applicant to the satisfaction of the Responsible Authority prior to the occupation of the development/use hereby approved commencing.

If there are concerns about the nature and extent of the contamination found in the Preliminary and Detailed Site Investigation reports, the Responsible Authority reserves the right to require a statutory environmental audit to be undertaken. In this case either:

(a) A certificate of environmental audit shall be issued for the land in accordance with Part IXD of the *Environment Protection Act 1970* prior to the occupation of the development/use hereby approved commencing; OR

(b) An environmental auditor appointed under the *Environment Protection Act 1970* must make a statement in accordance with Part IXD of that Act that the environmental conditions of the land are suitable for the intended use prior to the occupation of the development/use hereby approved commencing;
To the satisfaction of the Responsible Authority.

(c) Where a Statement of Environmental Audit is issued for the land, the development including subdivision hereby approved must comply with all the directions and conditions contained within the Statement.

(d) Where a Statement of Environmental Audit is issued for the land, prior to the issue of a Statement of Compliance for each stage, a letter prepared by an Environmental Auditor appointed under Section 53S of the *Environment Protection Act 1970* or such other qualified person to the satisfaction of the Responsible Authority must be submitted to the Responsible Authority to verify that the directions and conditions contained within the statement have been satisfied.

(e) Unless otherwise approved in writing by the Responsible Authority, where a Statement of Environmental Audit is issued for the land, and any condition of that Statement requires any maintenance or monitoring of an ongoing nature, prior to the issue of a Statement of Compliance for any stage of the subdivision authorised by this permit, the permit holder must enter into an Agreement with the Responsible Authority pursuant to Section 173 of the *Planning and Environment Act 1987*. All costs associated with setting up the Agreement must be borne by the owner. The Agreement must be registered on Title and run with the land, and must provide to the satisfaction of the Responsible Authority:

i. That the registered proprietor will undertake all required maintenance and/or monitoring in accordance with the statement.

Prior to the development commencing, application must be made to the Registrar of Titles to Register the Section 173 Agreement on the title to the land under Section 181 of the *Planning and Environment Act 1987*.

22. Signs Requiring Further Approval

Unless no permit is required under the Planning Scheme, other signs must not be constructed or displayed without a further permit.

23. Permit Expiry – Use and Development

Development and use of land expires if:
(a) The development or any stage of it does not start within two (2) years of the date of this permit; or
(b) The development or any stage of it is not completed within four (4) years of the date of this permit; or
(c) The use does not start within two (2) years after the completion of the development; or
(d) The use is discontinued for a period of two years.

The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires or within six months afterwards (for a request to extend the time to commence the development) or twelve months after the permit expires (for a request to extend the time to complete the development).

Notes:

Building Act 1993

Building Approvals
This permit does not constitute any authority to carry out any building works or occupy the building or part of the building unless all relevant building permits are obtained. The works hereby approved must accord with the requirements of the *Building Act 1993*, *Building Regulations 2018* and *Building Code of Australia 2019*.

Food Act 1984

An application for, and assessment of, food premises construction compliance under the *Victorian Food Act 1984* must be made with Council's Environmental Health Unit prior to its construction and use. Detailed floor and elevation plans will form the basis of that assessment and must be submitted for initial approval. A schedule of fixtures fittings and materials used for the fit out is also required.

Any proposed alteration to a food premises must be designed in accordance with requirements of the FSANZ Food Standards Code and Australian Standard 4674.

Works within Road Reserve
The construction or altering of a vehicle crossing, footpath and/or any other works or alterations within a road reserve or any other Council asset may require either a Crossover Permit (which includes a driveway and new crossover), a Road Opening Permit (ie. opening up a road for installation of infrastructure), Asset Protection Permit

(Temporary Crossing Permit i.e. providing for temporary site access) or other approval to be obtained from the City of Ballarat. This Planning Permit does not constitute such approval. Failure to obtain an appropriate permit or damaging Council infrastructure, including footpaths, kerbs, drains, street trees, nature strips etc. or failing to remove redundant crossings and reinstate the kerb, drain, footpath, nature strip or other part of the road is a breach of the Ballarat City Council Community Local Laws (10 Penalty Units). For further information, please contact Council's Asset Protection Officer in relation to Road Opening or Asset Protection permits and Council's Infrastructure Planning & Development Unit via Council's Customer Service Officers and the Arborist relating to Street trees.

Containment of Refuse and Disposal of Builders' Refuse

Under the provisions of the Ballarat City Council Community Local Law 2017 an on-site facility for containment of all builders' refuse is required to be provided on any land where any building work within the meaning of the *Building Act 1993* is being carried out. The local law contains specific provisions about the type and location of refuse containment facilities and the emptying and removal of such facilities.

Security Alarms

All security alarms or similar devices installed on the land must be of a silent type in accordance with any current standard published by Standards Australia International Limited and be connected to a security service.

Loudspeakers
No external sound amplification equipment or loud speakers are to be used for the purpose of announcement, broadcast, playing of music or similar purpose.

Soundproofing of Plant and Equipment

All external plant and equipment must be acoustically treated or placed in sound proof housing to reduce noise to a level satisfactory to the Responsible Authority.

Heritage Note

Under the terms of the *Heritage Act 2017* there is blanket protection for all historical archaeological sites in Victoria, including sites that are not included in the Victorian Heritage Register or Heritage Inventory. Section 123 of the Act stipulates that it is an offence to knowingly or negligently disturb any historical archaeological site unless consent has been obtained from the Executive Director, Heritage Victoria. Penalties apply.

If historical archaeological remains, including artefacts, are uncovered at any time during works, it is necessary for all activities to cease and for the City of Ballarat and Heritage Victoria to be notified immediately. In this case, a program of archaeological investigations and recording may be required in consultation with Heritage Victoria.

EXECUTIVE SUMMARY

On 13 March 2020 an Application was lodged for the use and development of a Childcare Centre at 1018-1022 Grevillea Road, Wendouree.

The application was advertised, and Council received 14 objections. Due to the restrictions imposed by the COVID-19 Pandemic a consultation meeting between parties was not held. A copy of the objections were provided to the Applicant. A written response together with revised plans responding to objector concerns were submitted by the Applicant on 10 June 2020 and distributed to submitters on 11June 2020. The submissions and the Applicant's response have been considered in this report.

A copy of the proposed revised plans is provided as ***Attachment 1.***

Having considered all relevant matters and the proposed changes it is recommended that Council issue a Notice of Decision to Grant a Planning Permit subject to conditions.

APPLICATION DETAILS

Applicant:	Tony De Jong Drafting Pty Ltd
Owner:	CJDT Properties Pty Ltd
Date Lodged:	13 March 2020
Subject Site:	1018-1022 Grevillea Road, WENDOUREE VIC 3355, Lot 1 PS413307
Current use:	Church (disused)
Zone:	General Residential Zone, Schedule 1 (GRZ1)
Overlays:	No overlay controls
Permit Triggers:	General Residential Zone, Schedule 1 Clause 32.08 Use and development of land for a childcare centre
Ward:	North
Number of Objections:	14
Mediation Meeting:	No
Council Referral Trigger:	Councillor call-in given number of objections
Covenant or S173:	No
CHMP Required:	No

PROPOSAL

The proposal is to use and develop a childcare centre on the subject land at 1018-1022 Grevillia Road, Wendouree. The proposal is summarised as follows:

- Works to existing building include:
    - External painting and rendering;
    - Door set removed and new door and window combination added to southern elevation:
    - Decorative perforated steel screens to eastern elevation (design to be determined);
    - Windows and coloured infill panels to western elevation;
    - New door and entranceway to western elevation;
    - New internal 1.2 metre high fencing around building entranceway.

- The existing building is setback a minimum of 6.36 metres from Grevillea Road, and a minimum of 14 metres (approx.) from Webbocona Parade, 4.61 metres from the dwelling to the north and 2.79 metres from the dwellings to the west.
- External materials would include render painted grey, perforated screens with images of children (with high impact colours, exact design yet to be determined), brick with painted fins and aluminum framed windows.
- The building comprises four learning areas, with associated storage and restroom facilities, staff, office and kitchen areas and reception area. The entrance is orientated towards the eastern car park.
- Outdoor learning and play space of approximately 906 square metres.
- The provision of up to 100 children and staff provision based on number of children enrolled.
- The hours of operation are proposed as 8.00am to 6.00pm Monday to Friday.
- 26 on-site car parking spaces (including one accessible space), located to the east of the site. The access aisle is 7.5 metres in width and car parking spaces are 2.6 by 4.9 metres.
- 1.8-metre-high timber paling fencing is proposed to the southern boundary. The fence would include sections of plastic-coated mesh.
- A Waste Management Plan (Tony De Jong Drafting April 2020) forms part of the application documentation. A private contractor would be engaged to manage the collection and disposal of all waste associated with the use.
- The application does not include details of business identification signage.

The application was formally amended in June 2020 following concerns raised by objectors relating to the number of children proposed and boundary fencing. The description of the proposal above is based on the current proposal to be considered.

The floor plans and elevations are provided as ***Attachment 1***. An Image of the proposal to Grevillia Road and Webconna Parade is provided below:

east elevation
Webbcona Parade frontage

south elevation
Grevillea Street frontage

SITE AND SURROUNDS

The land is included in the General Residential Zone, Schedule 1 (GRZ1), with residential uses surrounding the subject site. The subject site is irregular in shape, with two road frontages. Three properties abut the western boundary and one property abuts the northern boundary. All abutting properties are developed with dwellings. No overlays affect the subject land.

The north-eastern boundary fronts Webconna Parade and the southern boundary faces Grevillea Road. The site comprises a disused church with existing vehicular access off Webbcona Parade and Grevillea Road. The site has an area of 3313.62m2

A gravel car parking area exists in the eastern half of the site. There is some landscaping surrounding the car park and within the side and rear setbacks. There is no fencing to the Grevillea Road and Webconna Parade frontages.

Council records do not assign a build date to the church; however, an addition was undertaken in the 1980s and it is understood the original church was constructed mid last century. The building is constructed from a mixture of brick veneer and concrete panels with varied roof forms. The building is constructed around an internal courtyard with the main entrance on the eastern side, facing the carpark. The chapel is located in the south east corner of the building and features decorative coloured glazing.

Land in all directions of the subject site is within the General Residential Zone and is developed predominately with single dwellings. Further to the east, approximately 270 metres along Grevillea Road the zoning changes to Industrial. More broadly the subject site is within a residential area bounded by the Western Freeway to the north, Creswick Road to the east, Norman Street to the south and Gillies Street North to the west.

An aerial, zoning map and current image of the subject site from Webconna Parade are provided below:


Harrow St
Sherwood St
Oxford St
Marilyn St
Edwards Cr
Grandview Gr
Pickford St
Wendouree Baptist Church
Wendouree Uniting Church
GRZ1
Webbcona Bowls Club
Grevillea Rd
Rugby St
Eton St
Yale St
Harvard St
Walton St
Cambridge St
Forest St
Coulter St

RESPONSE TO NOTICE OF APPLICATION

The application was required to be advertised pursuant to Section 52 of the *Planning and Environment Act 1987.*
The following forms of advertising were undertaken:

- Notices sent to owners and occupiers of adjoining land (includes opposite).
- Two (2) A2 signs displayed on the land.
- Council has received 14 objections in response to advertising.
- The key issues raised in the objections can be summarised as follows:
    - Visual impact of fencing along Grevillea Road;
    - Traffic generation;
    - Car parking;
    - Amenity impacts, particularly noise;
    - Location is not appropriate for a commercial development.

- A mediation meeting was not undertaken due to the COVID-19 Pandemic and associated gathering and social distancing restrictions.
- The Applicant provided a written response and amended plans in response to objector concerns. Revisions to the amended plans included reducing the number of children to be accommodated within the centre to 100 and providing further detail on the boundary fencing to Grevillea Road.
- The written response and plans were circulated to objectors.
- At the date of this report one further submission was received reiterating concerns raised. There has been no objections withdrawn.
- The key issues raised in the objections are considered throughout the discussion in this report.

REFERRAL OF APPLICATION

External Referrals
The application was not required to be referred to any external authorities.

Internal Referrals

Environmental Health
No objection subject to conditions surrounding amenity protection for residents, including controlling light spill and noise pollution and the restriction of delivery hours.

Traffic and Transport
No objection subject to standard conditions surrounding the construction of the carpark, delineation of car parking spaces and display of directional signage.

Engineering
No objection subject to standard conditions as well as the construction of a footpath along the Grevillea Road and Webbcona Parade frontages.

Design and Survey
No objection subject to standard conditions.

KEY ISSUES
The proposal generally accords with the PPF including the LPPF of the Ballarat Planning Scheme. The principal issues are as follows

- Strategic justification
- Location
- Noise
- Car Parking
- Traffic Generation
- Objector concerns

Strategic Justification
There is strong policy support at both State and Local Government level for the provision of childcare centres in suitable locations.

Clause 19.02-2S of the Ballarat Planning Scheme aims to facilitate the integration of early childhood facilities within regional communities. The relevant strategies of the clause are as follows:

- *Consider demographic trends, existing and future demand requirements and the integration of facilities into communities in planning for the location of education and early childhood facilities;*
- *Locate childcare, kindergarten and primary school facilities to maximise access by public transport and safe walking and cycling routes;*
- *Ensure childcare, kindergarten and primary school facilities provide safe vehicular drop-off zones;*
- *Ensure streets and accessways adjoining education and early childhood facilities are designed to encourage safe bicycle and pedestrian access.*

In response to the above strategies the following is noted:

- The subject site is located in a residential area that has limited access to childcare centres, and is accessible to future growth areas to the north;
- The subject site is located within an established residential area and readily accessible by public transport (bus) and walking and cycling routes;
- A condition of the permit would require the construction of footpaths and planting of street trees along both road frontages, improving pedestrian access and amenity;
- The subject site is able to provide 26 onsite car parking spaces with sufficient room for internal pedestrian paths and landscaping;
- Two vehicular access points would allow traffic to flow in a single direction, minimising the need for vehicle manoeuvres onsite and improving pedestrian safety.

Location

Several objectors stated that the subject site is not an appropriate location for a childcare centre, due to the sensitive interfaces and frontage to local road networks. On assessment of the application it has been found that the site is suitable and that a childcare centre would be an acceptable outcome for the site for the reasons outlined in the following paragraphs.

The site is located in the General Residential Zone. A primary purpose of this zone is to allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations. Non-residential uses must be assessed against the following:

- *Whether the use or development is compatible with residential use;*
- *Whether the use generally serves local community needs;*
- *The scale and intensity of the use and development;*
- *The design, height, setback and appearance of the proposed buildings and works;*
- *The proposed landscaping;*
- *The provision of car and bicycle parking and associated accessways;*
- *Any proposed loading and refuse collection facilities;*
- *The safety, efficiency and amenity effects of traffic to be generated by the proposal*

Local policy at Clause 22.01 of the Ballarat Planning Scheme provides further guidance on how to ensure non-residential uses are located appropriately and controlled to minimise external amenity impacts. The policy seeks to ensure non-residential uses provide a net community benefit and are designed to integrate into the residential environment with minimal impact on residential amenity.

The objectives of this policy are:

- *To protect the existing residential character and amenity of the municipality by promoting and encouraging development in an orderly and proper manner;*
- *To ensure that development of discretionary uses cater for the needs of the local community without any detrimental impact on residential amenity.*

It is considered that the subject site is an appropriate location for the proposed use and the development aligns with the purpose of the zone and responds appropriately to the objectives of local policy. The location is considered appropriate for the following reasons:

- Being on a corner the site it is well located in terms of accessibility and exposure;
- The use will serve a local community need as there are currently no childcare centres within the area of Wendouree, north of Norman Street;
- The existing building, being a former church, provides limited possibilities for reuse and the establishment of a childcare centre on the site is considered a good outcome, readapting the building and ensuring the existing building is repurposed rather than demolished or left to decay;
- The presentation of the site to the surrounding streets would change minimally. The most obvious change will the development of fence along part of the Grevillea Road frontage. The remainder of the site would remain open and maintain the visual connection between the subject site and the street;
- The proposed fence to Grevillea Road is considered to respect the residential character of the area. Being on a corner site it is typical that one frontage would be developed with boundary fencing and this type of development is not uncommon in residential settings. Sections of the fence would be transparent to avoid an expanse of interrupted built form. The height of 1.8 metres is standard for boundary fencing;
- The amenity of the subject site would be improved through increased landscaping and the formalisation of the internal car park area;
- Given the sensitive interface to the west, the applicant would be required to address acoustic issues associated with children playing outside. Whilst compliance is

predicted to be achieved, the report can provide a number of recommendations that can be implemented into the design (i.e. acoustic fence and glazing techniques);
- Waste storage areas are located to the east of the building and away from the adjoining residential properties;
- The development provides opportunities for landscaping to assist with integrating the development into the residential setting. A landscape plan would be addressed through a condition of the permit;
- All required car parking can be located on site;
- Traffic generated by the use/development can be accommodated by the local road network and the location of the site on a main connector road ensures local residential streets are unlikely to experience a significant increase in traffic;
- The operating hours of 8am to 6pm, Monday to Friday, ensure that the weekend and nighttime amenity of the area is not impacted;
- The residential amenity of the area would be protected through the use of permit conditions requiring acoustic treatment, restricted operating, delivery and waste collection hours and the ability for the site to provide more than the required car parking onsite.

Noise

The primary amenity concern associated with an application of this nature is noise and this issue was raised by several objectors. The subject site is close to several dwellings and four dwellings directly abut the site. Noise is predominantly associated with children playing in external areas.

The external play areas are to be located to the south, east and north of the existing building and in the internal courtyard. The larger play spaces are located to the south east and north east of the building. It is likely the dwelling to the north of the site would be most impacted by noise. The northern façade would be fitted with larger door and window combinations that could increase noise from internal areas.

It is likely that noise would be less of an issue for residences to the west due to the location of the play areas and the makeup of the western façade that would feature highlight windows and a single-entry door. However, it is assumed that noise from external play areas would likely be heard from most adjacent properties at differing levels and it is acknowledged that noise from the site is likely to exceed what was previously generated.

As stated in VCAT case Charbrow Pty Ltd v Maroondah CC [2016]: *"The Tribunal has adopted the general approach that noise from childcare centres is reasonable within residential precincts but that operators of childcare centres have an obligation to ensure any noise impact is of an acceptable level".* It would be unreasonable to expect no noise during daytime hours, however due to the sensitive interfaces an acoustic report would be required as a condition of the permit and any recommendations within the report would need to be implemented to Council's satisfaction.

Conditions would also be applied to the permit controlling delivery hours as well as the placement of air conditioners and other external services. This will ensure that noise associated with the use is reduced as far as practicable.

Car Parking

The parking requirement under the Ballarat Planning Scheme associated with a childcare centre is 0.22 spaces to each child. The centre will accommodate 100 children. This equates

to a total of 22 car parking spaces. The plans provide for 26 car spaces including an accessible space and as the parking provision meets planning scheme requirements.

The subject site would be serviced by two vehicle crossovers. It is proposed that cars would enter the site from Grevillea Road and exit on to Webbcona Parade. A 7.5 metre accessway is proposed with car parking provided on both sides.

There is existing landscaping within the front setback and space for further landscaping to aid in softening the impact of the car parking area on the streetscape and would be required required as a condition of the permit.

Councils Traffic Engineers have assessed the proposal, including the parking provision and layout, and consent to the development.

In terms of on-street car parking, site visits revealed high vacancy rates in this area and if required it is considered that staff could park on adjacent streets with minimal impact. Noting properties in this area typically have off-street car parking and there is minimal demand for on street car parking.

Traffic Generation

In terms of traffic generated by the proposal it is acknowledged that the surrounding area would experience an increase in traffic at peak times, being early morning and evening. However, the road network has the capacity to accommodate this increase.

Grevillea Road is a 60 km/h connector road through Wendouree, providing a link between Dowling and Forest Streets. The site's accessibility to these main roads means there would be little need for vehicles to enter the local street network.

A site visit was undertaken at 8.30am on a Wednesday morning to determine the current level of traffic on the local network. The traffic on Dowling Street and Grevillea Road was light and traffic moving well. Forest Street experiences higher traffic volumes, likely due to the schools along this Street. No traffic congestion was observed within Grevillea Road.

While some vehicles may be required to turn right into the subject site it is considered the road is wide enough to permit passing. Based on the volume of traffic observed it is not considered turning in to the site and out of Webconna Parade would be a significant issue. The proposed access arrangements, to and from the site, are satisfactory and can operate safely from a traffic perspective. This is a view supported by Council Traffic and Transport Engineers.

While several objectors raised concerns about Grevillea Road being a local road and not a Road Zone this can also be taken as positive. As stated in VCAT case Charbrow Pty Ltd v Maroondah CC [2016] where the Tribunal found in favour of a childcare centre in a residential zone, it is not necessarily desirable for children to be exposed to arterial roads and the traffic and fumes associated with them. The Tribunal stated *"it would be desirable to avoid such an environment if practicable"* with reference to arterial roads.

Overall it is acknowledged that the number of vehicles visiting the area would increase at peak drop off and pick up times however, the surrounding road network is capable of absorbing this.

Objector Concerns

This section seeks to address additional concerns raised by objectors that have not been discussed above.

Several objectors raised concerns that a commercial venture shouldn't be allowed to operate in a residential area. While the General Residential Zone prohibits some commercial uses it explicitly supports the provision of uses, including educational ones, that serve local and community needs. While a childcare centre is a commercial operation it is serving a community need and would improve service provision within the local area.

As the Tribunal in VCAT case Charbrow Pty Ltd v Maroondah CC [2016] stated "*a residential area without such facilities would be regarded as failing to provide for the needs of its community. In my view a childcare centre is as essential to a residential community in the 21st century as is a kindergarten or primary school, and that it is to be expected that a childcare centre will be found within residential precincts.*

Several primary and secondary schools are located within a 1km radius of the subject site and the inclusion of childcare centre in this area is simply providing a need which is essential to functional and accessible residential areas.

The development would further benefit the local area by improving the security, amenity and presentation of the site which is currently vacant and disused and is not being maintained.

LEGISLATION, COUNCIL PLAN, STRATEGIES AND POLICY IMPACTS

- *Charter of Human Rights and Responsibilities Act 2006*
- City of Ballarat Council Plan 2017 – 2021
- *Planning and Environment Act 1987*
- Ballarat Planning Scheme

REPORTING AND COMPLIANCE STATEMENTS

Implications	Considered in Report?	Implications Identified?
Human Rights	Yes	Yes
Social/Cultural	Yes	Yes
Environmental/Sustainability	Yes	Yes
Economic	Yes	Yes
Financial/Resources	No	Yes
Risk Management	No	Yes
Implementation and Marketing	No	Yes
Evaluation and Review	No	Yes

Human Rights/Social Cultural – The application has been assessed in accordance with the requirements of the *Planning and Environment Act 1987* and the Ballarat Planning Scheme.

- The assessment is considered to accord with the *Charter of Human Rights and Responsibilities Act 2006*. Specifically:
- Freedom of Expression (part 2 section15)
- A fair hearing (part 2 section 24)
- Entitlement to participate to public life (part 2 section 18)

Environmental/Sustainability – The development proposed meets the environmental and sustainability standards set out in the Ballarat Planning Scheme.

Economic – The proposed use/development will positively contribute to the prosperity of the Ballarat Economy both during the construction stage and post development through provision of employment and educational services.

Financial/Resources – Council's assessment of the application and management of the planning permit process has been partially met by the fees paid pursuant to the *Planning and Environment Act 1987*. In relation to the construction program, there will be incidental costs to Council in the management of the construction program and the like.

Risk Management – There are no significant risks associated with the issue of a planning permit for this proposal.

Implementation and Marketing – N/A

Evaluation and Review – The construction process will be subject to review throughout the course of the program.

OFFICERS DECLARATIONS OF INTEREST

Council Officers affirm that no direct or indirect interests need to be declared in relation to the matter of this Report.

REFERENCE DOCUMENTS

- Ballarat Planning Scheme
- *Planning and Environment Act 1987*

ATTACHMENTS

1. PL P 2020117 1018-1022 Grevillea Road Wendouree Amended plans [**6.2.1** - 8 pages]
2. PLP2020117 1018 - 1022 Grevillea Road Wendouree Waste Management Plan [**6.2.2** - 2 pages]

South elevation - Grevillea Road. Fins to be painted colours to match windows. Door set removed and made good with rendered/paint.

South elevation - Grevillea Road. Render & paint grey. Door/Window combination added.

East elevation - Webconna Parade. Perforated coloured steel designed panels on the east rendered & painted wall.

North elevation. Rendered & painted grey

North elevation. Rendered & painted grey, poles painted & 1200h fence added.

East elevation. Rendered & painted grey, poles painted & 1200h fence added.

North-East elevation - Webconna Parade. Rendered & painted grey.

North elevation - shed to be removed.

South West elevation - concrete blocks to be removed and replaced with windows & coloured infill panels.

West elevation - Side access door & window to be constructed & rendered & painted grey to match the front of building.

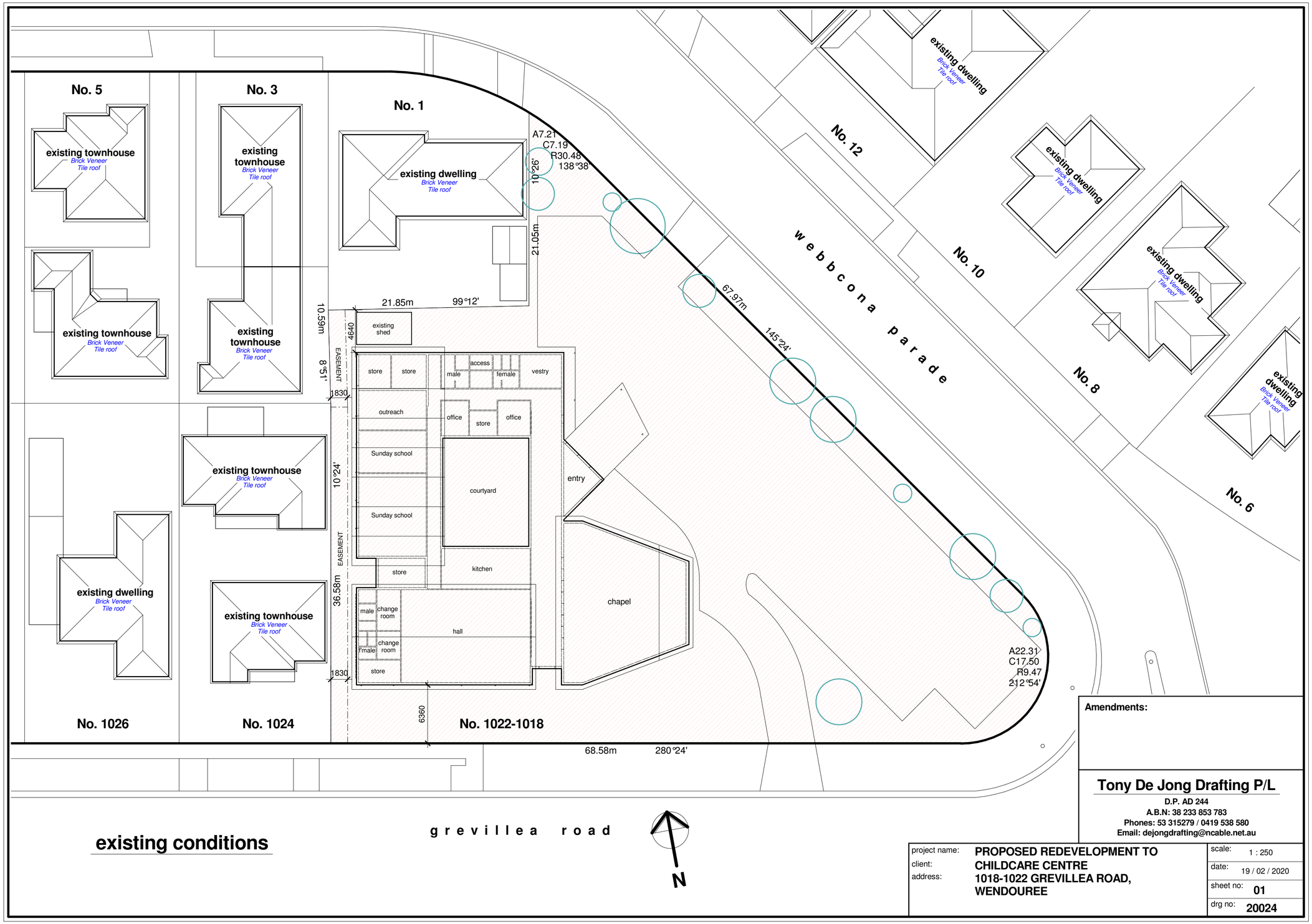
West elevation - No structural change, to be maintained & windows painted where needed.

Amendments:

Tony De Jong Drafting P/L

D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

project name:	**PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE**	scale:	-
client:		date:	19 / 02 / 2020
address:	**1018-1022 GREVILLEA ROAD, WENDOUREE**	sheet no:	**00**
		drg no:	**20024**

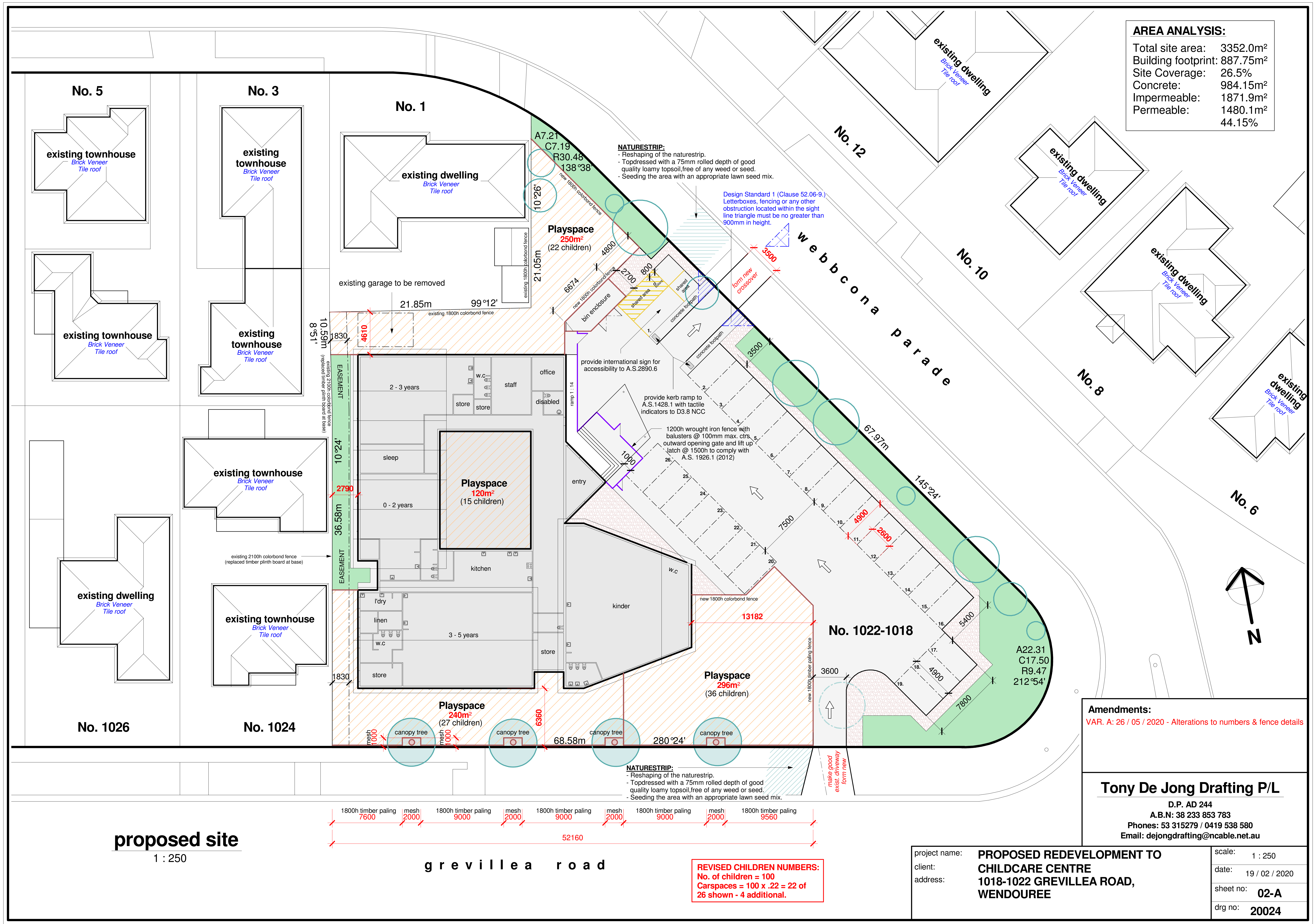


existing conditions

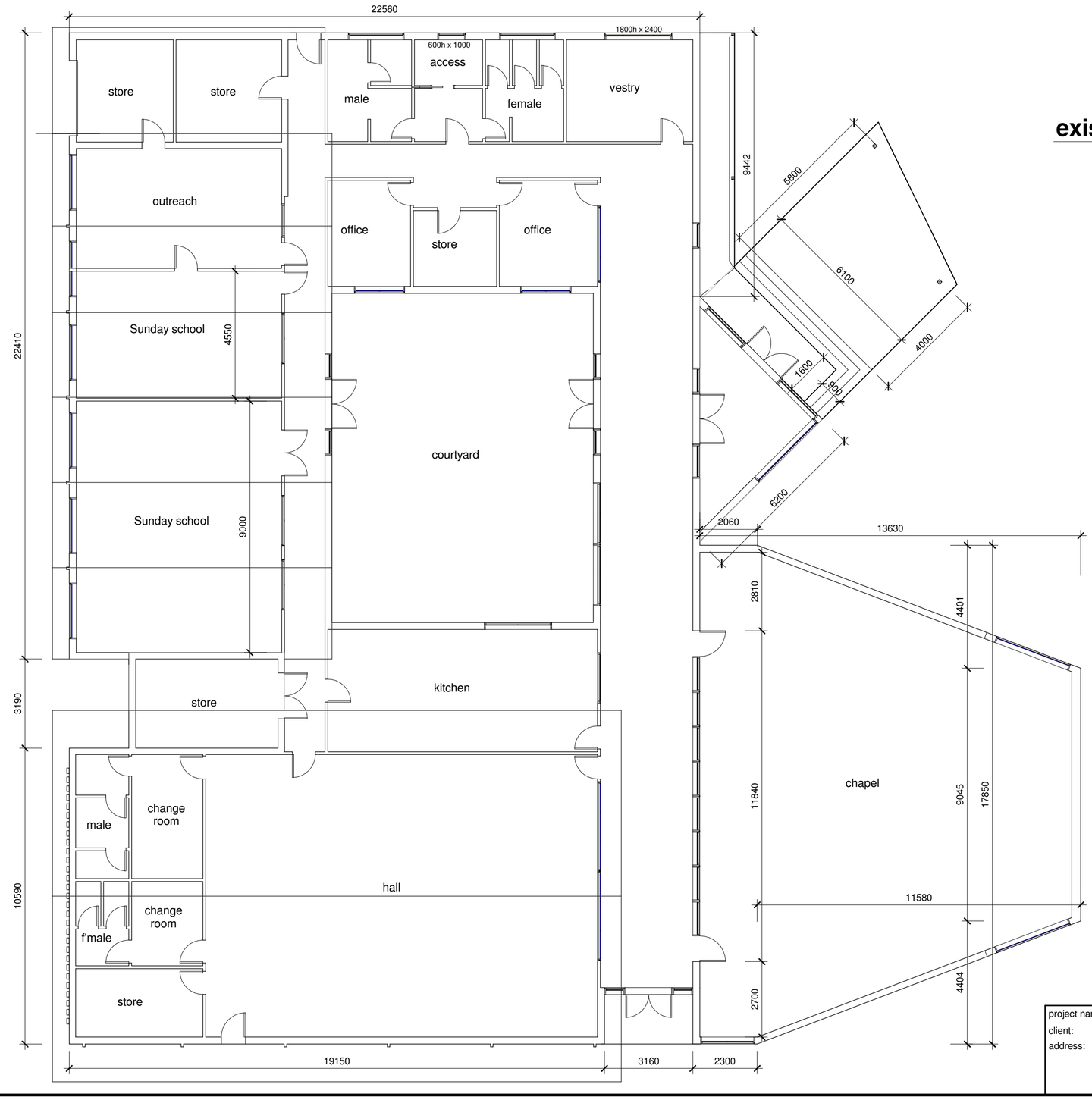
Amendments:

Tony De Jong Drafting P/L
D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

project name:	PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE
client:	
address:	1018-1022 GREVILLEA ROAD, WENDOUREE
scale:	1 : 250
date:	19 / 02 / 2020
sheet no:	01
drg no:	20024


AREA ANALYSIS:
Total site area: 3352.0m²
Building footprint: 887.75m²
Site Coverage: 26.5%
Concrete: 984.15m²
Impermeable: 1871.9m²
Permeable: 1480.1m²
44.15%
No. 5
No. 3
No. 1
existing townhouse
Brick Veneer
Tile roof
existing dwelling
existing garage to be removed
No. 12
No. 10
No. 8
No. 6
w e b b c o n a   p a r a d e
NATURESTRIP:
- Reshaping of the naturestrip.
- Topdressed with a 75mm rolled depth of good quality loamy topsoil,free of any weed or seed.
- Seeding the area with an appropriate lawn seed mix.
Design Standard 1 (Clause 52.06-9.) Letterboxes, fencing or any other obstruction located within the sight line triangle must be no greater than 900mm in height.
form new crossover
Playspace
250m²
(22 children)
Playspace
120m²
(15 children)
Playspace
240m²
(27 children)
Playspace
296m²
(36 children)
bin enclosure
provide international sign for accessibility to A.S.2890.6
provide kerb ramp to A.S.1428.1 with tactile indicators to D3.8 NCC
1200h wrought iron fence with balusters @ 100mm max. ctrs, outward opening gate and lift up latch @ 1500h to comply with A.S. 1926.1 (2012)
2 - 3 years
sleep
0 - 2 years
kitchen
3 - 5 years
office
staff
disabled
entry
kinder
store
l'dry
linen
w.c
EASEMENT
No. 1022-1018
67.97m
145°24'
21.85m
99°12'
36.58m
68.58m
280°24'
A22.31
C17.50
R9.47
212°54'
No. 1026
No. 1024
canopy tree
make good exist. driveway form new
1800h timber paling
mesh
52160
proposed site
1 : 250
g r e v i l l e a   r o a d
REVISED CHILDREN NUMBERS:
No. of children = 100
Carspaces = 100 x .22 = 22 of 26 shown - 4 additional.
N
Amendments:
VAR. A: 26 / 05 / 2020 - Alterations to numbers & fence details
Tony De Jong Drafting P/L
D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au
project name: PROPOSED REDEVELOPMENT TO
client: CHILDCARE CENTRE
address: 1018-1022 GREVILLEA ROAD, WENDOUREE
scale: 1 : 250
date: 19 / 02 / 2020
sheet no: 02-A
drg no: 20024

existing floor



N

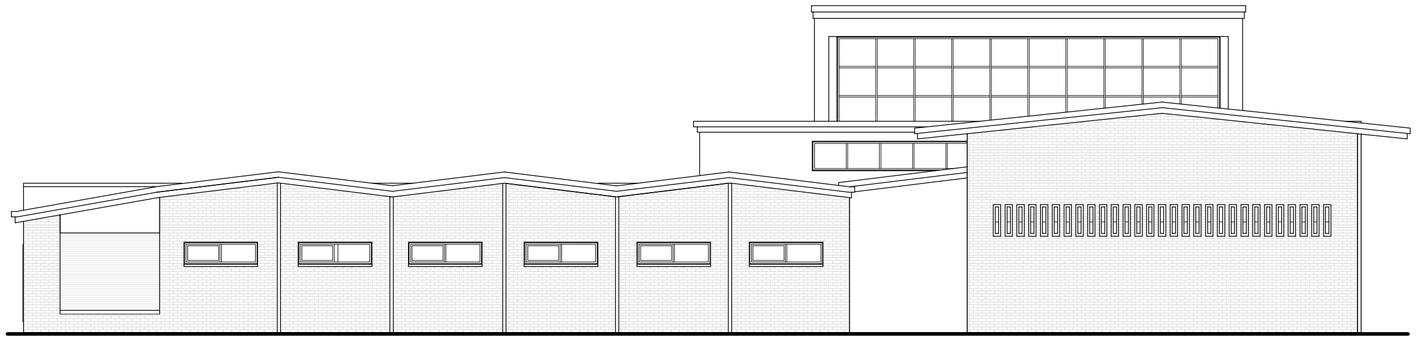
Amendments:

Tony De Jong Drafting P/L

D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

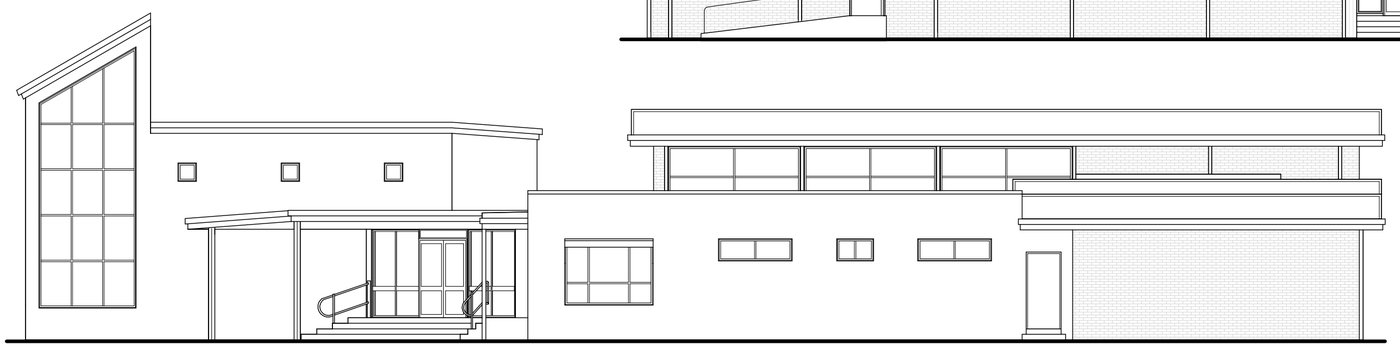
project name:	PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE	scale:	1 : 100
client:		date:	13 / 02 / 2020
address:	1018-1022 GREVILLEA ROAD, WENDOUREE	sheet no:	03
		drg no:	20024

west elevation



east elevation
Webbcona Parade frontage

south elevation
Grevillea Street frontage



north elevation

Amendments:

Tony De Jong Drafting P/L
D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

project name:	PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE	scale:	1 : 100
client:		date:	13 / 02 / 2020
address:	1018-1022 GREVILLEA ROAD, WENDOUREE	sheet no:	04
		drg no:	20024

proposed floor plan

smoke detector to A.S. 3786 to be hardwired & interconnected

d.p ▬ 100 x 50 downpipes

1200h wrought iron fence with balusters @ 100mm max. ctrs outward opening gate and lift up latch @ 1500h to comply with A.S. 1926.1 (2012)

Note:
Provide 2.5kg dry chemical fire extinguisher adjacent to electrical switchboard

2kg dry chem. extinguisher & 1.2m x 1.2m fire blanket

2 - 3 years
22 children

0 - 2 years
15 children

3 - 5 years
27 children

kinder
36 children

Playspace
Area = 120m²

Notes:

1. Do not scale drawings, use written dimensions only.

2. Confirm all dimensions on site.

3. All works shall comply with but not limited to the following Australian standards:
A.S. 1288 - 2006 Glass in buildings -selection and installation.
A.S. 1684.2 - 2010 National Timber Framing Code.
A.S. 3700 - 2018 Masonry in buildings.
A.S. 3786 - Smoke Alarms.
A.S. 4055 - 2012 Wind loadings for housing.

4. Soil classification - These plans shall be read in conjunction with the relevant soil report.

5. Stormwater shall be diverted to the legal point of discharge to the satisfaction of the relevant authority.

6. For new dwellings or additions to dwellings provide thermal insulation as listed.

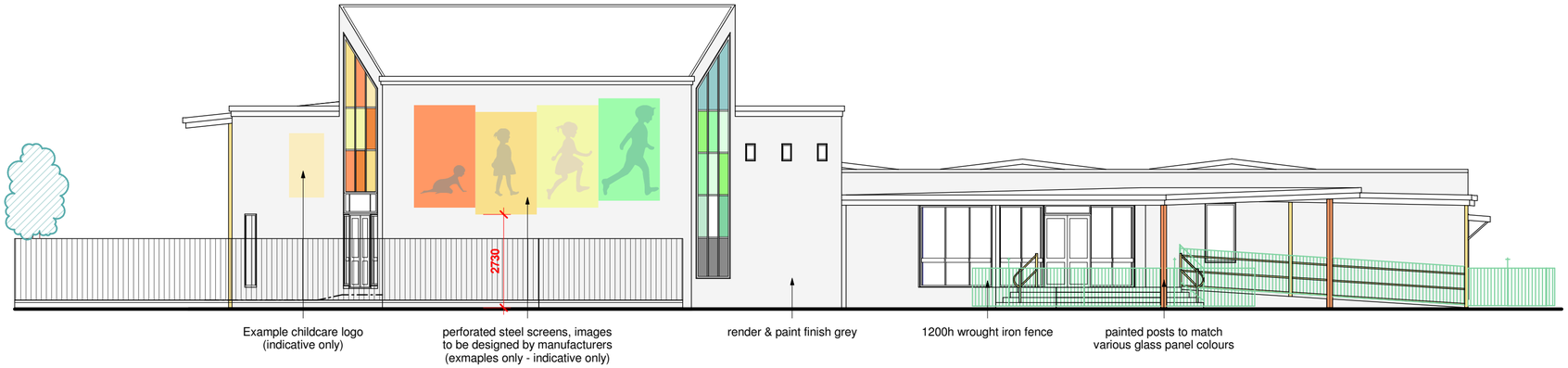
7. Stair requirements:- risers - 190mm Maximum, 115mm minimum.
- going - 355mm Maximum, 250mm minimum.

8. Smoke alarms to be provided & installed in accordance with A.S. 3786. Smoke detectors to be hardwired & interconnected where more than 1.

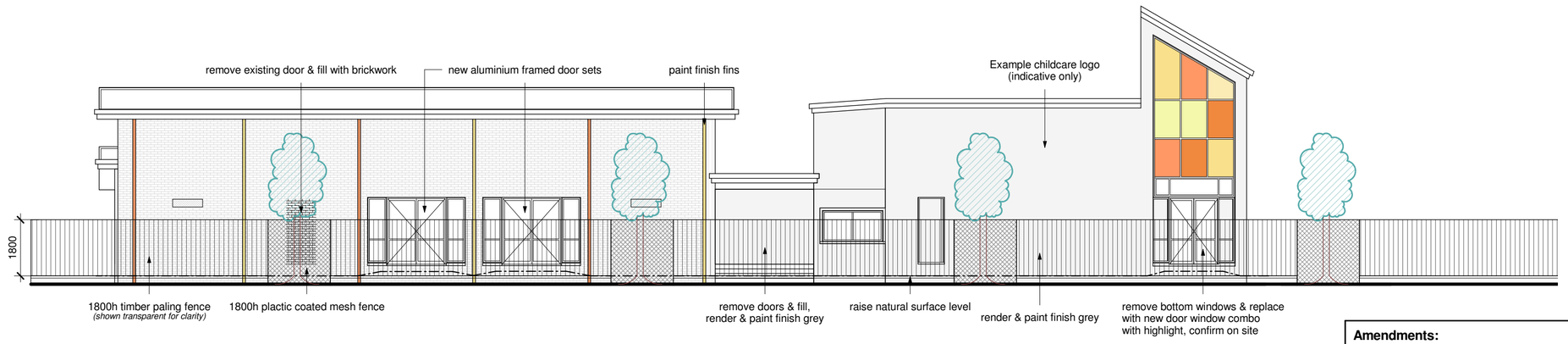
Amendments:
VAR. A: 26 / 05 / 2020 - Alterations to numbers & fence details

Tony De Jong Drafting P/L
D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

project name:	PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE
client:	
address:	1018-1022 GREVILLEA ROAD, WENDOUREE
scale:	1 : 100
date:	19 / 02 / 2020
sheet no:	05-A
drg no:	20024



east elevation
Webbcona Parade frontage



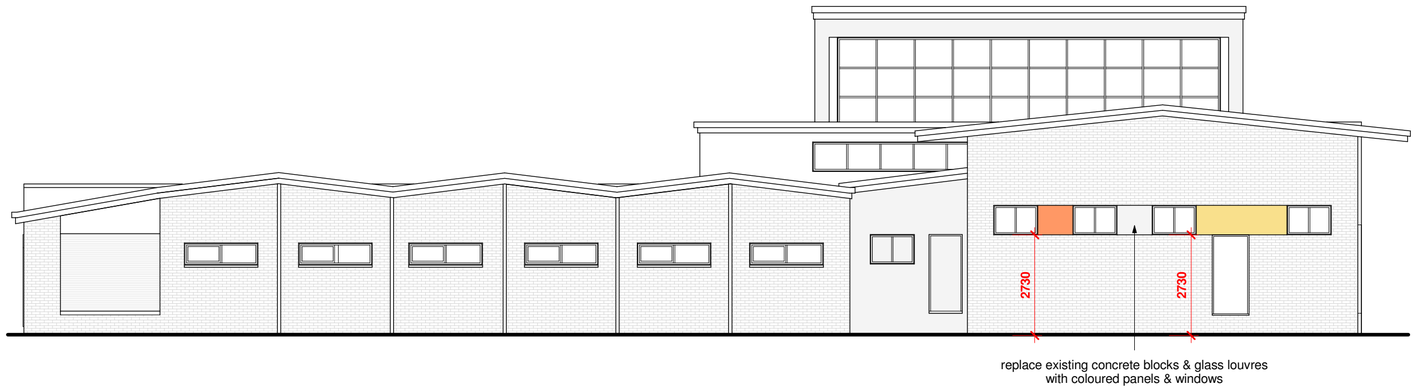
south elevation
Grevillea Street frontage

Amendments:
VAR. A: 26 / 05 / 2020 - Alterations to numbers & fence details

Tony De Jong Drafting P/L
D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

project name:	PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE
client:	
address:	1018-1022 GREVILLEA ROAD, WENDOUREE
scale:	1 : 100
date:	19 / 02 / 2020
sheet no:	06-A
drg no:	20024

north elevation



west elevation

Amendments:
VAR. A: 26 / 05 / 2020 - Alterations to numbers & fence details

Tony De Jong Drafting P/L
D.P. AD 244
A.B.N: 38 233 853 783
Phones: 53 315279 / 0419 538 580
Email: dejongdrafting@ncable.net.au

project name:	PROPOSED REDEVELOPMENT TO CHILDCARE CENTRE	scale:	1 : 100
client:		date:	27 / 05 / 2020
address:	1018-1022 GREVILLEA ROAD, WENDOUREE	sheet no:	07-A
		drg no:	20024

Tony De Jong Drafting P/L
P.O. Box 40bk
Black Hill Vic 3350
Phone: 03 53 322 468
Mobile: 0419 538 580
Email: dejongdrafting@ncable.net.au

Tony De Jong Drafting P/L

06-04-2020

Waste Management Plan

Project: Childcare Centre

Client: J. O'Shannassey
Site: 1018-1022 Grevillea Road, Wendouree

Brief - provide a waste management plan that provides for the efficient and effective removal of waste generated from the operation of a proposed childcare centre at 1018-1022 Grevillea Road, Wendouree

Contractor - Datow Bin Waste.
Address - 29 Dorset Drive, Alfredton.
Phone - 0408 126 421

Vehicle Details -
Isuzu NPR300
Dimensions - 2.2m wide x 6.8m long (includes lifter).
The lifter is located at the rear of the truck.
Turning circles are not an issue as the truck can enter the site and then exit the site without having to reverse.
The garbage truck can access the site, load and then exit the site in a forward direction as required by the responsible authority.

Frequency -
The expected frequency is fortnightly intervals with garbage to be collected from the collection area shown on attached plans.
Recycled and normal landfill bins will be provided.

It will be the reponsibility of the tenants to get the waste to the bin collection area.
The bin collection area is clearly shown on attached plans with signage provided on site.
The garbage is collected during normal business hours as required.
Both normal general waste and recyclables will be catered for.
The bins will be provided by Datow Bin Waste.

Noise, Odour and litter -
Noise odour and litter should be no worse or better than is typically the case in any residential street.
The bins have lids and will remain located behind a dedicated lockable screen until the collection day.
This should help minimise any odour or excess litter.
The contractors driver will collect any litter which results from the unloading of the bins.
The bins will be collected during business hours which should minimise any disruption caused by the noise of the trucks engine and lifting mechanism.

Regards

Tony De Jong
Director

6.3. PLP/2020/83 53 HUMFFRAY STREET NORTH BAKERY HILL COUNCIL REPORT

Division: Infrastructure and Environment
Director: Darren Sadler
Author/Position: Jane Archer - Statutory Planner

RECOMMENDATION

The Planning Special Committee resolves to:

Issue a Notice of Decision to Grant a Planning Permit PLP/2020/83 for the land at 53 Humffray Street North, Bakery Hill to erect and display a major promotional sign and works to an existing building subject to the following conditions:

1. **Buildings and Works**

   The development as shown on the endorsed plans must not be altered without the written consent of the Responsible Authority. All buildings and works must be constructed and or undertaken in accordance with the endorsed plans to the satisfaction of the Responsible Authority prior to the commencement of the use. All buildings and works must be located clear of any easements or water and sewer mains unless written approval is provided by the relevant authority.
2. **Department of Transport REF:PPR 32605/20**

   (a) Any image displayed must be static and displayed for 60 continuous seconds or more.
   (b) The transition from one image to another must be instantaneous.
   (c) The advertising content of the sign must not:

      i. Consist of more than one static image at a time.
      ii. Contain any animation.
      iii. Consist of a sequence of images giving the illusion of movement from one image to the next.
      iv. Contain or consist of images which are capable of being interpreted as projections beyond the face of the advertising screen, such as through the image to the next.
      v. Contain or consist of video, movie or television broadcasts.
      vi. Contain or consist of present-time or other contemporary update information such as relating to news, weather or time.
      vii. Contain any flashing, blinking, brightening or fading elements that create the illusion of movement or change.
      viii. Be capable of being mistaken for a traffic signal or a traffic control device. This includes the use of red, amber or green circles, octagons, crosses or triangles.
      ix. Be a traffic instruction, or be capable of being mistaken as, an instruction to a road user. This includes the use of the wording stop, give way, slow, turn left or turn right.

   (d) The sign must not dazzle or distract road users due to its colouring or content.
   (e) The advertising area must not be split into 2 or more screens (horizontally, vertically, diagonally or in any other manner) with different messages or images.
   (f) The sign and any displayed advertisement must not include ancillary extension, embellishment or accessorisation within or outside the permitted

advertising area, unless the Head, Transport for Victoria has agreed in writing, prior to installation.

(g) The use of sound or motion to activate the sign is not permitted.

(h) The use of sound to interact with any road user is not permitted.

(i) The luminance of the advertising sign must be such that it does not give a veiling luminance to the driver, of greater than 0.25 cd/m², throughout the driver's approach to the advertising sign.

(j) The electronic sign is to be dimmable and have a suitable control system to enable maximum lighting levels to be set or adjusted if deemed necessary by the Responsible Authority or the Head, Transport for Victoria.

(k) Where illuminated during the day, the signage is to be fitted with Photocell/s (light sensor/s) that measure the ambient light and control system technology that enables the luminance of the signage to automatically adjust relative to the measured ambient light level. Any change to brightness levels must only be applied during an image transition, not while an image is being displayed.

(l) The advertising sign must shut down and cease any form of visual display (and must remain in shut down mode until the issues are resolved), in the event of:

i. an attack by a computer hacker, virus or similar resulting in the unauthorised display of visual images or messages.

ii. any malfunction of the advertising sign.

3. <u>Illumination</u>

The illumination levels of the sign must not exceed the following restrictions:

(a) Maximum permissible luminance of 190 cd/m2 during night-time.

(b) Maximum permissible luminance of 700 cd/m2 during morning and evening twilight, and during overcast weather.

(c) Maximum permissible luminance of 6000 cd/m2 during daytime luminance.

Prior to the operation of the sign, a Lighting Impact Assessment must be prepared to the satisfaction of the Responsible Authority and endorsed as part of this permit. The report must be generally in accordance with the report prepared by Electrolight Australia Pty Ltd but updated in accordance with the operational requirements of the sign as approved by the conditions of this permit.

The sign must be operated in accordance with the approved Lighting Impact Assessment to the satisfaction of the Responsible Authority.

4. <u>Major Promotion Sign</u>

The sign must not:

(a) Dazzle or distract drivers due to its colouring.

(b) Be able to be mistaken for a traffic signal because it has, for example, red circles, octagons, crosses or triangles.

(c) Be able to be mistaken as an instruction to drivers.

5. <u>Signs Not Altered</u>

The location and details of signs including those of the supporting structure, as shown on the approved plans must not be altered without the further written consent of the Responsible Authority.

6. <u>Sign Structure Not Altered</u>

The location and details of the structure shown on the approved plan must not be altered without the further written consent of the Responsible Authority.

7. **Signs within Land Boundary**
   The signage hereby permitted must be located wholly within the boundaries of the land.
8. **Sign Maintenance**
   All signage must be constructed and maintained to the satisfaction of the Responsible Authority.

9. **Signs Requiring Further Approval**
   Unless no permit is required under the Planning Scheme, other signs must not be constructed or displayed without a further permit.
10. **Expiry Date**
    The signage approved by this permit expires 15 years from the date of issue. All signage must be removed to the satisfaction of the Responsible Authority by this date.

11. **Permit Expiry - Development Only**

    This permit will expire if one of the following circumstances applies:
    (a) The development is not started within two years of the date of this permit;

    (b) The development is not completed within four years of the date of this permit.

    The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires or within six months afterwards (for a request to extend the time to commence the development) or twelve months after the permit expires (for a request to extend the time to complete the development).

    Notes:
    Building Act 1993
    Building Approvals
    This permit does not constitute any authority to carry out any building works or occupy the building or part of the building unless all relevant building permits are obtained. The works hereby approved must accord with the requirements of the *Building Act 1993*, Building Regulations 2018 and Building Code of Australia 2019.

EXECUTIVE SUMMARY

On 17 February 2020 an application was lodged to erect and display an electronic promotion sign and external alterations to a commercial building at 53 Humffray Street North, Bakery Hill 3350.

The application was advertised, and Council received 3 objections. Due to the restrictions imposed by the COVID-19 Pandemic a consultation meeting between parties was not held, instead objectors were contacted individually by the planning officer to discuss their concerns. A copy of the objections were provided to the Applicant and a written response to objector concerns was submitted to Council on 28 April 2020, a copy of which were distributed to objectors on the 29 April 2020. The submissions and the Applicant's response have been considered in this report.

Amended plans were submitted to address concerns raised by the Department of Transport, namely in relation to a second display to face south along Humffray Street North. The application was amended on the 19 May 2020 and this report considers those amended plans.

Having considered the proposed changes and all matters relevant to the proposal it is recommended that Council issue a Notice of Decision to Grant a Planning Permit subject to conditions.

APPLICATION DETAILS

Applicant:	Regional Billboard Co Pty Ltd
Owner:	Brezza Investments Pty Ltd
Date Lodged:	17 February 2020
Subject Site:	53 Humffray Street North, Bakery Hill VIC 3350, Lot 1 TP100592 and Lot 2 TP100592
Current use:	Commercial building – current tenant is non-profit disability service
Zone:	Commercial 1 Zone (C1Z) Road Zone, Category 1 (RDZ1)
Overlays:	No overlay controls
Permit Triggers:	**Commercial 1 Zone** • Clause 34.01-4 - a permit is required to construct a building or construct or carry out works **Signs** • Clause 52.05-2 - a permit is required to construct or put up for display a sign in Section 2
Ward:	Central
Number of Objections:	3
Mediation Meeting:	No
Council Referral Trigger:	The current Statutory Planning Advertising Signs Policy does not specifically consider electronic signage. Noting concern of Councillors to a recent similar decision it has been determined any application that sits within the Ballarat Business District for electronic promotion signage will be referred to Council for consideration. It is anticipated that a review of the policy will occur over the coming months and will form the subject of a future report to Council.
Covenant or S173:	No
CHMP Required:	No

PROPOSAL

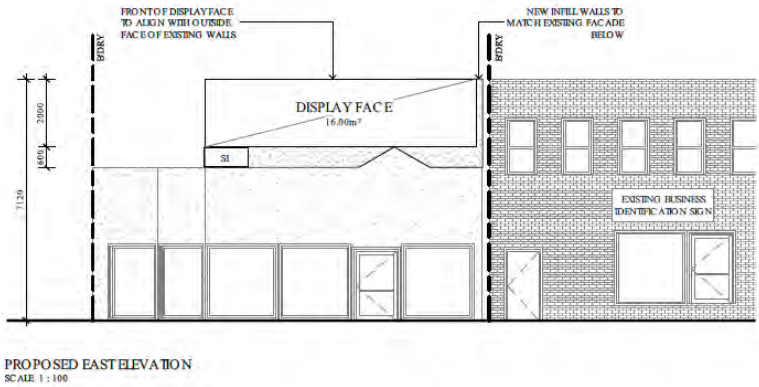
The proposal is to erect and display an electronic promotion sign and undertake external alterations to the building on the subject land at 53 Humffray Street North Bakery Hill. The proposal is summarised as follows:

- A single sided electronic sign to sit atop an existing commercial building on the north west corner of Mair Street East and Humffray Street North;
- The display is to face east along Mair Street;
- The display face would be 16m^2 with a length of 8m, depth of 0.775m and height of 2m;
- The depth of the sign incorporates a 500mm access platform for maintenance purposes;
- It is proposed to operate the sign 24 hours a day;
- A minimum 30 second dwell time is proposed for all advertisements, however, would be revised to 60 seconds in line with Department of Transport requirements;
- The proposed digital signage would be illuminated using LEDs installed within the front face;

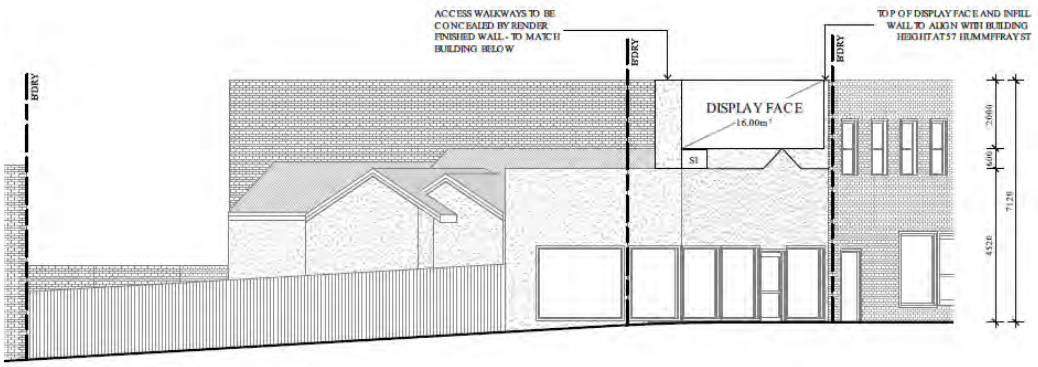
- The brightness of the LEDs would be controlled to provide upper and lower thresholds via a local light sensor;
- The signage proposes baffles to mitigate upward waste light;
- A Lighting Impact Assessment (Electrolight March 2020) informs brightness and lighting.
- Sections of the building's parapet are to be filled in to accommodate the sign, the infill wall would be rendered to match the existing building;
- A promotional sign with an area of 0.715 m^2 is proposed underneath the main display face, on the eastern elevation of the building, displaying the applicant's business name;
- The sign would be supported by a steel frame attached to the building.

The plans submitted to council as the original proposal included a second display to face south along Humffray Street North. The Department of Transport objected to this section of the sign and the applicant revised the plans accordingly. The application was amended on the 19 May 2020 and this report considers those amended plans.

The considered plans are provided as ***Attachment 1***. Elevations and a perspective of the proposal are provided below:



PROPOSED EAST ELEVATION
SCALE 1 : 100



PROPOSED SOUTH ELEVATION
SCALE 1 : 100

PROPOSED PERSPECTIVE VIEW #01 - WESTBOUND TRAFFIC

SITE AND SURROUNDS

The subject site is located on the north west corner of the Mair Street East and Humffray Street North intersection, Bakery Hill and comprises two parcels.

The site is irregular in shape and approximately 490m2 in area. The subject site has a frontage of 9.3m (approx.) to Humffray Street North and frontage of 20m (approx.) to Mair Street East. The site's western boundary abuts Coal Gears Road for a distance of approximately 11m.

The site is developed with a single storey commercial building with a frontage to Humffray Street North. The rear of the building, which is visible from Mair Street, features a pitched roof with several gable ends, and the external walls have a rendered finish. The Humffray Street frontage is covered in a concrete façade with extensive glazing at ground level, although all windows are covered in signage. The built form covers approximately 65% of the site, with the other 35% (to the west) utilised as hard surface car parking and vehicle circulation.

Vehicles access is via Coal Gears Road to the west. A single driveway in the north-west corner of the site is used by vehicles to access the property. There is another small crossover to Mair Street with gated access to the subject site. A timber paling fence fronts Mair Street.

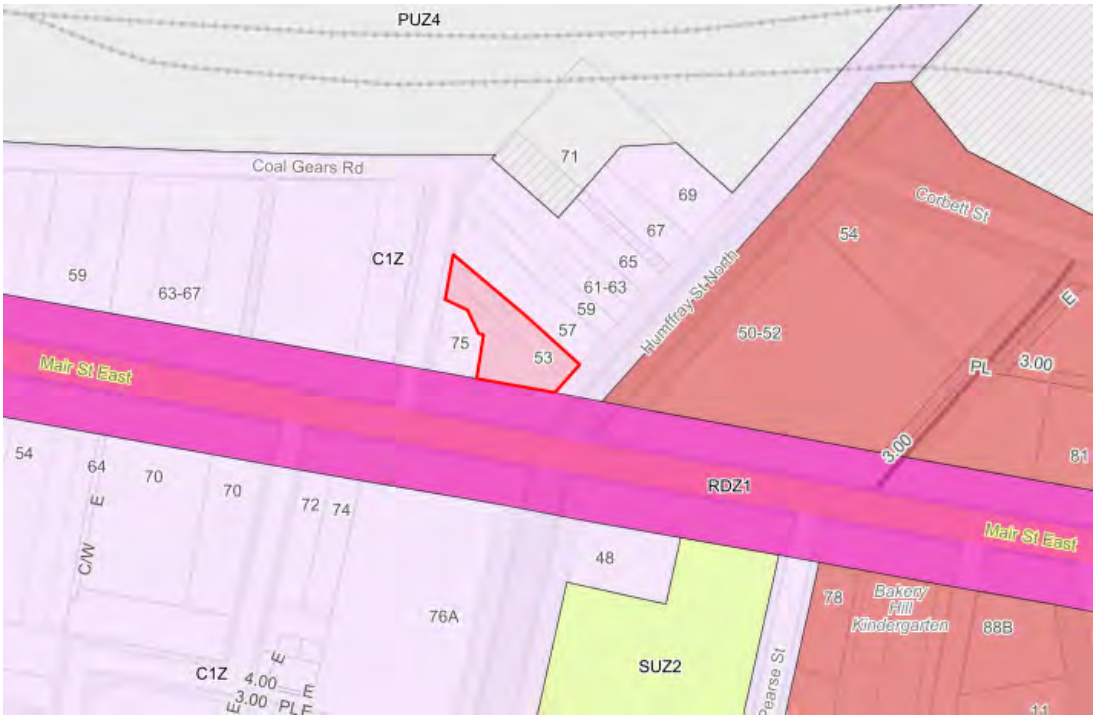
The topography of the site falls from the Humffray Street boundary (eastern) down to the western boundary. This gradient continues outside the property boundaries with the land falling down to Peel Street (Approx. 150m to the West). The topography to the north, east and south is more even and generally flat.

The characteristics of the surrounding area include:

- Abutting the northern boundary is a double storey commercial property occupied on the ground floor by a retail space with offices above;
- On Humffray Street North, to the east is a food and drink premises, Ballarat Leagues Club and drive through bottle shop;
- On Mair Street East to the south is an old school building currently occupied by the Ballarat Antiques Centre with current approval for the use and development of a residential hotel and development of retail and accommodation.
- The western boundary abuts 57 Mair Street East, a single storey commercial office.
- Across Coal Gears Road to the west lies a large commercial development which is occupied by Lincraft and Clark Rubber.

More broadly the area is commercial in nature with little exception. Mair Street East forms the northern boundary of the Ballarat Central Business District (CBD). To the north, the railway delineates between the CBD and adjoining residential areas. The section of Mair Street to the west is predominantly developed with bulky good tenancies. East along Mair Street from the subject site is the Bakery Hill shopping centre and complementary commercial uses.

An aerial, zoning map and current image of the subject site from the corner of Humffray Street North and Mair Street East are provided below:



RESPONSE TO NOTICE OF APPLICATION

The application was required to be advertised pursuant to Section 52 of the *Planning and Environment Act 1987.* The following forms of advertising were undertaken:

- Notices sent to owners and occupiers of adjoining land (includes opposite)
- 2 A2 signs were placed on the land on each road front.

Council received 3 objections.

The key issues raised in the objections can be summarised as follows:

- Impact on road safety;
- Visual dominance and impact on streetscape;
- Development doesn't comply with state and local policy in relation to signage.

Due to the restrictions imposed by the COVID-19 Pandemic a consultation meeting between parties was not held, instead objectors were contacted individually by the planning officer to discuss their concerns. A copy of submissions were provided to the applicant and a written

response to objector concerns was submitted to Council on 28 April 2020, a copy of which were distributed to objectors on the 29 April 2020. The key issues raised are considered in this report.

At the date of this report no further submissions were received and no objections withdrawn.

REFERRAL OF APPLICATION

External Referral

Referral (S55)	Advice/Response/Conditions	Response
Department of Transport	Consented subject to conditions listed above under Recommendation.	Point (a) of the response has been addressed by the applicant and the plans amended to remove the smaller panel. The changes have been referred to VicRoads. At the time of this report the referral response was outstanding.

Internal Referral

Department	Advice/Response/Conditions	Response
Traffic and Transport	Recommendations • That the proposed electronic variable message promotional sign at 53 Humffray Street North, Bakery Hill is supported in principle pending VicRoads consent and requirements. • That advertising content of the sign must not consist of more than one static image on any face at a time, contain or consist of video, movie or television broadcast, contain any flashing or create the illusion of movement unless agreed to by VicRoads.	Acknowledged

KEY ISSUES

The proposal generally accords with the PPF including the LPPF of the Ballarat Planning Scheme. The principal issues are as follows

- Strategic Justification
- Location
- Level of Illumination
- Impact on Traffic Safety

Strategic Justification

There is policy support at both State and Local Government levels for the development of signage in a manner that respects the local context, is safe and avoids visual clutter and disorder.

Clause 15.01-1S aims to create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity. The policy seeks to ensure that development, including signs, minimise detrimental impact on amenity, the natural and built environment and on the safety and efficiency of roads.

Councils' Municipal Overview at Clause 21.01 recognises that minimising the impact of advertising signage on visual amenity is a key issue within Ballarat. Clause 21.06 – Built Form, Heritage and Design, provides local content to support Clause 15 of the Planning Policy Framework as well as strategies to implement the vision of Clause 21.01. The policy acknowledges that quality of design is crucial to Ballarat's identity and competitiveness. Strategies relevant to this application include:

- *Ensure that the scale, bulk and quality of new development contributes to the character and amenity of the built environment;*
- *Maintain important views and vistas within the Ballarat CBD including skyline views of spires and towers and the Yarrowee escarpment;*
- *Improve the visual quality of major transport routes and connections to tourist destinations; and*
- *Ensure advertising signs avoid visual pollution and intrusive light spill, respecting the architecture of their host buildings, the surrounding streetscape character and skyline.*

It is considered the proposal at 53 Humffray Street North responds appropriately to the above strategies as:

- The scale of the sign is appropriate, the top of the sign is in line with the top of the commercial building to the north of the subject site and it would sit comfortably within the existing streetscape;
- The sign has been designed to be consistent with the surrounding 2-storey building scale and while it would be evident it will not dominate the skyline;
- The sign would have no impact on important views or vistas and does not compromise views to any spires or towers;
- Mair Street is a major transport route, however, is not considered a gateway to Ballarat. It is considered the site will improve the visual quality in this section of Mair Street which lacks visual interest and a sense of identity;
- The host building is a modest structure with no notable features and minimal ornamentation. The proposed sign is a simple structure that would not conflict with the design of the building and layout of the façade;
- A Lighting Impact Assessment has been provided with the application that demonstrates the sign can be operated without intrusive light spill;
- The sign would not result in visual pollution or disorder as there are no other major promotional signs in proximity to the intersection or any other signs of a similar scale.

Clause 21.09 Local Areas locates the subject site within in the Mair Street Corridor. *Making Ballarat Central*: *The CBD Strategy 2017-2021 Action Plan* provides further strategies for managing development in this corridor. While the strategy makes some reference to advertising signage at CBD entry points and within the Bridge Mall core retail area it is silent on advertising signs within the Mair Street Corridor. It does however include the following strategies for the corridor that are relevant to this application:

- *Actively promote the Mair Street corridor as a location for new development and investment;*
- *Improve the streetscape quality of Mair Street;*
- *Enhance the amenity of Bakery Hill.*

Due to the topography of Mair Street and lack of significance in terms of heritage it is an area where higher densities and the redevelopment of low scale buildings are actively encouraged. It is considered that the proposed electronic major promotion sign aligns with this vision, assisting in positioning the corridor as an important and vibrant commercial precinct within the CBD.

The future vision for the corridor is a mixed-use environment with a focus on offices and high profile commercial and retail uses. This is the type of environment where a range of building forms and signage is expected and is a location where a sign of this scale and of an electronic nature would be anticipated.

Location
State and local policy does not directly guide major promotion signs and relies on Clause 52.05 Signs to provide further direction in terms of locational choice. The purpose of the provision is:

- *To regulate the development of land for signs and associated structures;*
- *To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character;*
- *To ensure signs do not contribute to excessive visual clutter or visual disorder;*
- *To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.*

It is considered that the proposal for an electronic major promotional sign at the intersection of Mair Street East and Humffray Street North aligns with the purpose of the provision. The sign is compatible with the existing and desired future character of the commercial area as discussed above.

Objectors raised concerns that the proposal does not align with the final two points. A key concern of objectors is that the sign would contribute to visual clutter and disorder and damage the amenity of the area.

Advertising signage is a prominent feature of nearby streetscapes, particularly to the west of the subject site along Mair Street East. Due to the nature of the uses along the corridor, signage is colourful and large scale. As most buildings don't have verandahs signage is generally placed directly on to the front façade and there is generally no signage above the roof line of buildings. As such when looking west down Mair Street the view is relatively unobstructed by signage.

While advertising signage is a feature of the area it is not considered the proposed major promotion sign would contribute to visual clutter. The proposed sign is a different type of sign to be erected at a different level and orientation to other signage within the area. When driving west along Mair Street East the sign would sit in its own space and is not part of a cluster of signage. There are no other similar signs along Mair Street or in the intersection and drivers and pedestrians will not be exposed to visual disorder, clutter or pollution.

The clause also includes specific decision guidelines for major promotion signs and their impact on the following must also be assessed:

- *Significant streetscapes, buildings and skylines;*
- *The visual appearance of a significant view corridor, viewline, gateway location or landmark site identified in a framework plan or local policy;*
- *Residential areas and heritage places;*
- *Open space and waterways.*

When determining the effect of a proposed major promotion sign, the following locational principles must be taken into account:

- *Major promotion signs are encouraged in commercial and industrial locations in a manner that complements or enhances the character of the area;*
- *Major promotion signs are discouraged along forest and tourist roads, scenic routes or landscaped sections of freeways;*
- *Major promotion signs are discouraged within open space reserves or corridors and around waterways.*
- *Major promotion signs are discouraged where they will form a dominant visual element from residential areas, within a heritage place or where they will obstruct significant viewlines;*
- *In areas with a strong built form character, major promotion signs are encouraged only where they are not a dominant element in the streetscape and except for transparent feature signs (such as neon signs), are discouraged from being erected on the roof of a building.*

It is considered that the proposed location of the electronic major promotional sign responds adequately to the above:

- The subject site is not impacted by any heritage or neighborhood character overlays;
- It is not a sensitive area in terms natural environment or heritage values;
- The subject land is well separated from residential areas and open space reserves and not dominantly visible from these areas;
- Mair Street East is not a significant view corridor and is not listed as a gateway site that warrants protection from inappropriate visual intrusions pursuant to the *Ballarat Advertising Sign Guidelines, 2013*
- The subject site sits in commercial setting and the sign has been designed to complement the surrounding built form in scale and rhythm;
- This section of Mair Street East does not have a strong connection to any built form character.

The *Ballarat Advertising Sign Guidelines, 2013* is a reference document to the Ballarat Planning Scheme and aids officers in their decision making. The document does not consider electronic signage and has no detailed guidance on major promotion signs, only that it should be temporary and are discouraged in the following areas:

- *Along tourist roads, scenic routes or landscape sections of freeways;*
- *Within open space reserves or corridors and around waterways;*
- *Where they will form a dominant visual element from residential areas within a heritage place or where they will obstruct significant viewlines.*

More generally *The Guidelines* also discourage signs which:

- obscure architectural features;
- are internally illuminated except those outside heritage areas;
- sky signs which extend beyond the building envelope;

- signs which conflict with the design of the building.

As discussed above the subject site is not located along a tourist road or scenic route or within an open space reserve. The sign would not be visible from residentially zoned areas and is not within a heritage place. The sign would not obscure any significant architectural features and while it would extend outside the envelope of the host building, it will sit in line with the two storey building to the north.

Victorian Civil and Administrative Tribunal (VCAT) context
Electronic signs are often regarded in a negative context however signs have an important role in the built environment, and it cannot be fairly said that the inclusion of major promotion sign in the streetscape will reduce visual amenity [*Wyndson Pty Ltd v Bayside CC, 18 October 2004*].

Major promotion signs can add interest to the buildings on which they are placed and contribute to the vibrancy of the area [*Buckle Outdoor Advertising Pty Ltd v Port Phillip CC, 30 June 2001*]. It is considered that the proposed location is robust enough to accommodate the proposed sign and that the chosen location is a suitable one as elaborated above.

Level of Illumination
A Lighting Impact Assessment prepared by Electrolight Australia Pty Ltd was provided with the application and reviewed the proposed digital signage against the following design guidelines and standards:

- VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves.
- AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting.

The maximum permissible night-time luminance of the signage is determined by the existing lighting environment. Australian Standard 4282 (AS4282) outlines maximum average luminance for different Environmental Zones. The proposed signage is located within Environmental Zone A4 – High District Brightness (town and city centres and commercial areas). The Max Average Luminance (cd/m^2) for this zone is 350 cd/m^2. AS4282 does not include limits for daytime operation of illuminated signage.

The AS4282 assessment also includes a review of nearby residential dwellings. Based on an assessment of the surrounding area the nearest buildings that appear residential and have potential views to the signage are at 9-11 Humffray Street North, noting this is based on an approved development and not yet constructed. This proposed development forms the focus of the illuminance assessment. As noted above the subject site is in Environmental Zone A4. This zone permits a Max Vertical Illuminance (lux) of 25 pre-curfew and 5 post-curfew (11pm to 6am).

The proposed signage was modelled in lighting calculation program AGI32 to determine the effect of the light spill from the proposed signage on surrounding dwellings. During night-time operation the lighting model demonstrated that the maximum illuminance to future dwellings in Zone A4 is 0.56 lux. This illuminance level complies with the maximum AS4282 limit of 5 lux.

Overall the report recommends a nighttime cd/m^2 of 190. While the Australian Standard actually permits a 350 cd/m^2 the proposed luminance limit has been derived as a result of

ensuring compliance with other criteria of AS4282. It is recommended the proposed digital signage is commissioned on site to yield the following maximum luminance's:

LUMINANCE LEVELS FOR DIGITAL ADVERTISEMENTS		
Lighting Condition	Max Permissible Luminance (cd/m2)	Compliant
Full Sun on face of Signage	No Limit	✓
Day Time Luminance (typical sunny day)	6000	✓
Morning and Evening Twilight and Overcast Weather	700	✓
Night Time	190	✓

In complying with the above requirements, the proposed signage is unlikely to result in unacceptable glare nor should it adversely impact the safety of pedestrians, residents or vehicular traffic. Additionally, the proposed signage would not cause any reduction in visual amenity to nearby residences or accommodation. A condition is proposed to ensure compliance with the above thresholds and ensure technology is installed that enables the luminance of the signage to automatically adjust, relative to the measured ambient light level.

Impact on Traffic Safety

Objectors raised concerns that the sign could be a safety hazard and lead to accidents occurring in the intersection. It is considered that due to the location of the sign it will not impact on traffic safety and is not a hazard. Pursuant to Clause 52.05 a sign is a safety hazard if the sign:

- *Obstructs a driver's line of sight at an intersection, curve or point of egress from an adjacent property.*
- *Obstructs a driver's view of a traffic control device, or is likely to create a confusing or dominating background that may reduce the clarity or effectiveness of a traffic control device. Could dazzle or distract drivers due to its size, design or colouring, or it being illuminated, reflective, animated or flashing.*
- *Is at a location where particular concentration is required, such as a high pedestrian volume intersection.*
- *Is likely to be mistaken for a traffic control device, because it contains red, green or yellow lighting, or has red circles, octagons, crosses, triangles or arrows.*
- *Requires close study from a moving or stationary vehicle in a location where the vehicle would be unprotected from passing traffic.*
- *Invites drivers to turn where there is fast moving traffic, or the sign is so close to the turning point that there is no time to signal and turn safely.*
- *Is within 100 metres of a rural railway crossing.*
- *Has insufficient clearance from vehicles on the carriageway.*
- *Could mislead drivers or be mistaken as an instruction to drivers.*

It is considered that the location of the sign would not unacceptably impact on road safety and is not a safety hazard. The sign is located to be primarily viewed by drivers travelling west along Mair Street East. Drivers coming from other directions would not have a direct view to the sign.

The sign is proposed to be located above the traffic lights controlling the flow of traffic west along Mair Street East. Drivers would have clear views to the traffic signals and unobstructed

sight through the intersection. No traffic signals are located directly in front of the sign and traffic signals are easily distinguishable and prominent.

There is a rail crossing approximately 100 metres to the north of the subject site. Due to the angle of Humffray Street North, drivers would not view the sign and lights from the rail crossing at the same time.

The subject intersection is not a highly pedestrianised intersection and a not a location where particular concentration is required, such as intersections with multiple roads converging at different angles. The intersection is signalised and as such the flow of traffic is well controlled.

Objectors raised concerns that the sign could be a distraction to drivers and lead to accidents occurring in the intersection. As stated in VCAT case Octopus Media Pty Ltd v Port Phillip CC [2005] VCAT 2786 (19 December 2005) "*In terms of distraction we are all subjected in our lives to various forms of advertising as are we also subjected to the use of recent technology. This sign is combining both which is not something unexpected or unusual. The sign may result in a second glimpse when first viewed but a second glimpse is no different to what would occur when looking at for example a roadside traffic information"*. It is considered that the advertising sign will not cause any further distraction to what is already part of the driver experience.

In terms of the implications of light spill from the sign on traffic safety, the *VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves* outlines a maximum allowable veiling luminance of 0.25 cd/m2 for a driver throughout the approach to an illuminated sign.

The proposed signage (and surrounding environment) was modelled in lighting calculation program AGI32 to determine the veiling luminance for the traffic travelling into the intersection. Calculation grids were located at 1.5m above ground level, with an approach viewing distance of between 10m to 200m from the sign and a windscreen cut off angle of 20 degrees (as outlined in AS1158). The calculation results of the model show that the veiling luminance from the signage does not exceed 0.236d/m2 for all traffic approaches.

It has therefore been demonstrated by the provided Lighting Impact Assessment that the proposed signage complies with the maximum veiling luminance of 0.25 cd/m2 as described in *VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves.*

It is considered the illumination of the sign can be suitably designed as to not be a safety hazard. Furthermore, conditions provided by the Department of Transport are to be included on the Notice of Decision that would require the sign to comply with the maximum veiling luminance as well as other safety standards ensuring drivers are not dazzled or distracted by moving images or colours.

LEGISLATION, COUNCIL PLAN, STRATEGIES AND POLICY IMPACTS

- *Charter of Human Rights and Responsibilities Act 2006*
- City of Ballarat Council Plan 2017 – 2021
- *Planning and Environment Act 1987*
- Ballarat Planning Scheme

REPORTING AND COMPLIANCE STATEMENTS

Implications	Considered in Report?	Implications Identified?
Human Rights	Yes	Yes
Social/Cultural	Yes	Yes
Environmental/Sustainability	Yes	Yes
Economic	Yes	Yes
Financial/Resources	No	Yes
Risk Management	No	Yes
Implementation and Marketing	No	Yes
Evaluation and Review	No	Yes

Human Rights/Social Cultural – The application has been assessed in accordance with the requirements of the *Planning and Environment Act 1987* and the Ballarat Planning Scheme.

- The assessment is considered to accord with the *Charter of Human Rights and Responsibilities Act 2006*. Specifically:
- Freedom of Expression (part 2 section15)
- A fair hearing (part 2 section 24)
- Entitlement to participate to public life (part 2 section 18)

Environmental/Sustainability – The development proposed meets the environmental and sustainability standards set out in the Ballarat Planning Scheme.

Economic – The proposal will positively contribute to the prosperity of the Ballarat Economy.

Financial/Resources – Council's assessment of the application and management of the planning permit process has been partially met by the fees paid pursuant to the *Planning and Environment Act 1987*. In relation to the construction program, there will be incidental costs to Council in the management of the construction program and the like

Risk Management – There are no significant risks associated with the issue of a planning permit for this proposal.

Implementation and Marketing – The advice of Council's decision in this regard will be made public through a press release following the Council meeting

Evaluation and Review – The construction process will be subject to review throughout the course of the program.

OFFICERS DECLARATIONS OF INTEREST

Council Officers affirm that no direct or indirect interests need to be declared in relation to the matter of this Report.

REFERENCE DOCUMENTS

- *Planning and Environment Act 1987*
- Ballarat Planning Scheme
- Making Ballarat Central: The CBD Strategy 2017-2021
- Ballarat Advertising Sign Guidelines, 2013

ATTACHMENTS

1. PLP202083 53 Humffray Street North Bakery Hill Amended Plans [**6.3.1** - 4 pages]
2. PL P 2020083 53 Humffray Street _ion Lighting Impact Assessment [**6.3.2** - 18 pages]
3. PL P 2020083 53 Humffray Street _th Bakery Hill Planning Report [**6.3.3** - 27 pages]

BAKERY HILL - PROPOSED ELECTRIC PROMOTION SIGN

53 HUMFFRAY STREET NORTH, BAKERY HILL, VIC 3550

TOWN PLANNING DRAWINGS

PHOTO 01

PHOTO 02

PHOTO 03

PHOTO 04

KEY PLAN
SCALE 1 : 500

PHOTO LEGEND	
NO.	DESCRIPTION
01	PHOTOGRAPHIC VIEW NORTH FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.
02	PHOTOGRAPHIC VIEW EAST FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.
03	PHOTOGRAPHIC VIEW SOUTH FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.
04	PHOTOGRAPHIC VIEW WEST FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.

ISSUE/ AMMENDMENTS SCHEDULE

01 10.02.2020
TOWN PLANNING ISSUE

02 19.03.2020
RFI RESPONSE

03 14.05.2020
RFI RESPONSE

TOWN PLANNING

NOT FOR CONSTRUCTION

REGIONAL BILLBOARD CO.

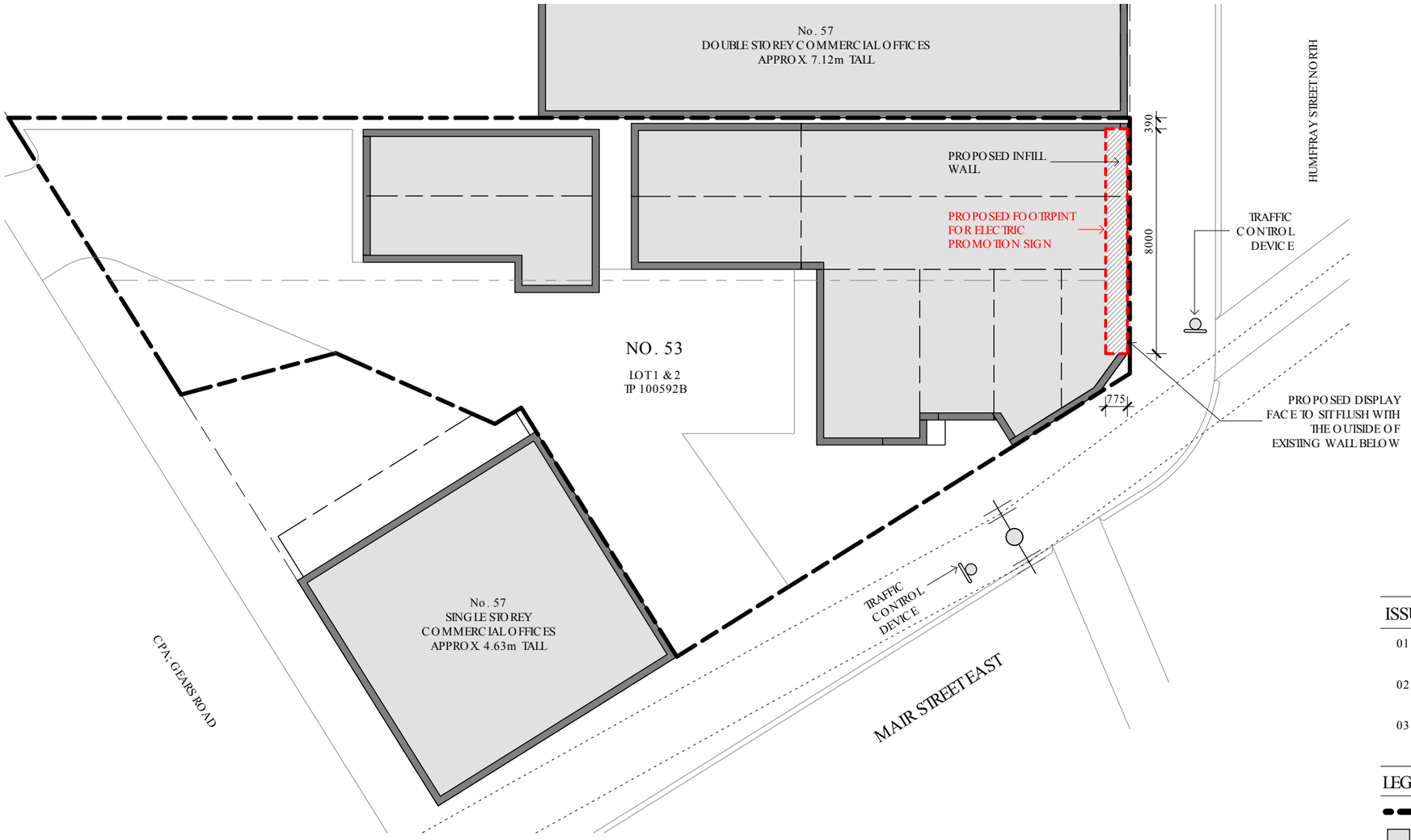
PROJECT
BAKERY HILL - PROPOSED ELECTRONIC PROMOTION SIGN

ADDRESS
53 HUMFFRAY STREET NORTH,
BAKERY HILL, VIC 3550

NORTH POINT

DATE 14/05/2020
DRAWING NO. A01
DRAWN BY JAMES
PROJECT NO. 19-019
PAGE SIZE A3
ISSUE NO. 03

REGIONAL BILLBOARD CO.
A 62 John Street, ELTHAM VIC 3095
E james@regionalbillboardco.com.au
M 0400 096 182



SITE PLAN
SCALE 1 : 150

ISSUE/ AMMENDMENTS SCHEDULE

01	10.02.2020	TOWN PLANNING ISSUE
02	19.03.2020	RFI RESPONSE
03	14.05.2020	RFI RESPONSE

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDINGS ONSITE
- PROPOSED ELECTRIC PROMOTION SIGN FOOTPRINT

TOWN PLANNING

NOT FOR CONSTRUCTION

REGIONAL BILLBOARD CO.

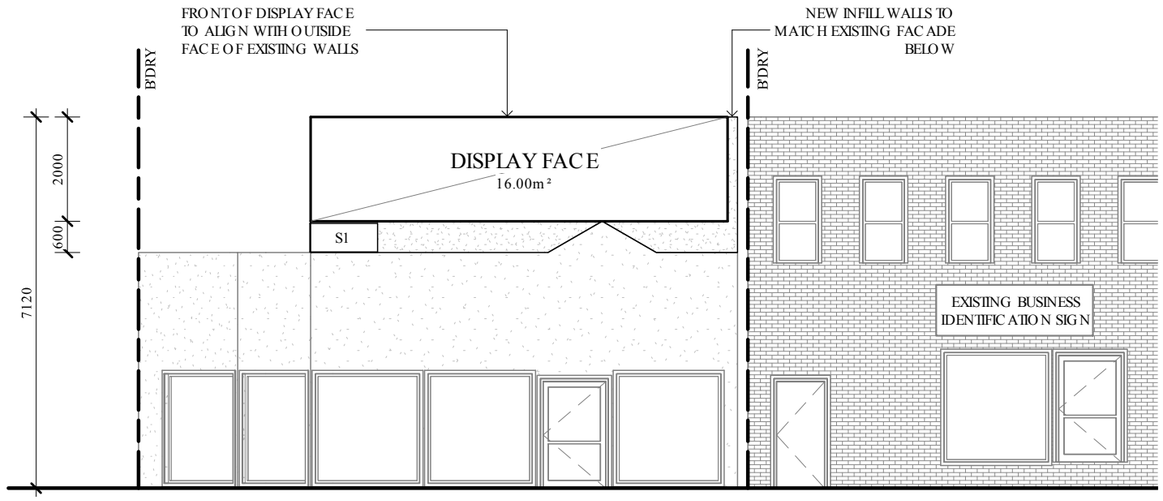
PROJECT
BAKERY HILL - PROPOSED ELECTRONIC PROMOTION SIGN

ADDRESS
53 HUMFFRAY STREET NORTH,
BAKERY HILL, VIC 3550

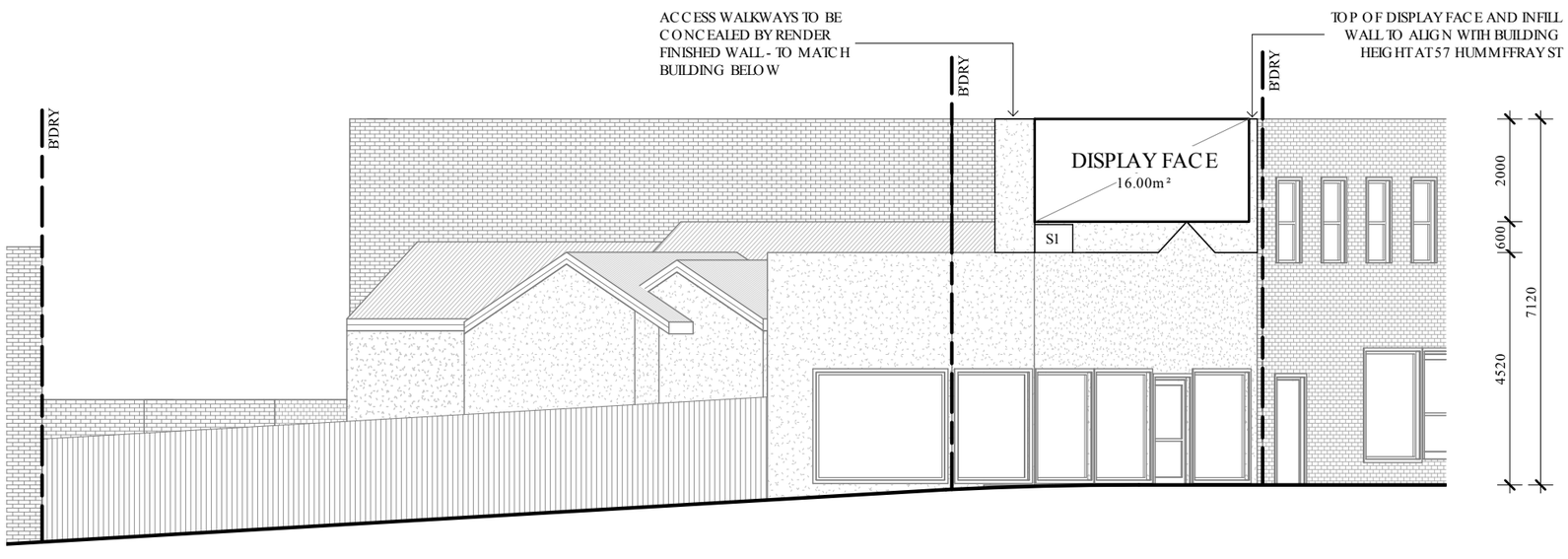
NORTH POINT

DATE	DRAWING NO.	DRAWN BY
14/05/2020	A02	JAMES
PROJECT NO.	PAGE SIZE	ISSUE NO.
19-019	A3	03

REGIONAL BILLBOARD CO.
A 62 John Street, ELTHAM VIC 3095
E james@regionalbillboardco.com.au
M 0400 096 182



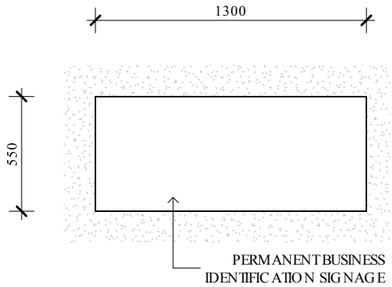
PROPOSED EAST ELEVATION
SCALE 1 : 100



PROPOSED SOUTH ELEVATION
SCALE 1 : 100

MATERIALS BOARD

INFILL WALL
PROPOSED INFILL WALL SURROUNDING DISPLAY FACE - RENDER FINISH TO MATCH EXISTING WALL BELOW



S1 - SIGNAGE DETAIL
SCALE 1 : 25

ISSUE/ AMMENDMENTS SCHEDULE

01	10.02.2020	TOWN PLANNING ISSUE
02	19.03.2020	RFI RESPONSE
03	14.05.2020	RFI RESPONSE

LEGEND

NGL	NATURAL GROUND LINE
S1	PERMANENT SIGN 1 - REFER TO DETAIL

TOWN PLANNING
NOT FOR CONSTRUCTION

REGIONAL BILLBOARD CO.

PROJECT
BAKERY HILL - PROPOSED ELECTRONIC PROMOTION SIGN

ADDRESS
53 HUMFFRAY STREET NORTH,
BAKERY HILL, VIC 3550

NORTH POINT

DATE	DRAWING NO.	DRAWN BY
14/05/2020	A03	JAMES
PROJECT NO.	PAGE SIZE	ISSUE NO.
19-019	A3	03

REGIONAL BILLBOARD CO.
A 62 John Street, ELTHAM VIC 3095
E james@regionalbillboardco.com.au
M 0400 096 182

EXISTING PERSPECTIVE VIEW #01 -
WESTBOUND TRAFFIC

PERSPECTIVE VIEW REFERENCE
SCALE 1 : 500

PROPOSED PERSPECTIVE VIEW #01 - WESTBOUND TRAFFIC

GENERAL NOTES

PROPOSED PERSPECTIVE VIEW IS AN ARTISTS IMPRESSION OF THE PROPOSAL ONLY. SIZE AND SCALE ARE REFERENCED ON THE FLOOR PLANS AND ELEVATIONS.

THE PROPOSAL SEEKS THE APPROVAL OF THE ERECTION OF AN ELECTRONIC PROMOTION SIGN

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE SUPPLIED TOWN PLANNING REPORT

REFER TO THE TOWN PLANNING REPORT FOR THE WRITTEN STATEMENT REGARDING THE METHODOLOGY DURING THE PREPARATION OF PERSPECTIVE VIEWS

ISSUE/ AMMENDMENTS SCHEDULE

01 10.02.2020
TOWN PLANNING ISSUE

02 19.03.2020
RFI RESPONSE

03 14.05.2020
RFI RESPONSE

LEGEND

#00 PERSPECTIVE VIEW - LOCATION IN WHICH PHOTOGRAPHIC VIEWS WERE TAKEN

TOWN PLANNING
NOT FOR CONSTRUCTION

REGIONAL BILLBOARD CO.

PROJECT
BAKERY HILL - PROPOSED ELECTRONIC PROMOTION SIGN

ADDRESS
53 HUMFFRAY STREET NORTH,
BAKERY HILL, VIC 3550

NORTH POINT

DATE 14/05/2020	DRAWING NO. A04	DRAWN BY JAMES
PROJECT NO. 19-019	PAGE SIZE A3	ISSUE NO. 03

REGIONAL BILLBOARD CO.
A 62 John Street, ELTHAM VIC 3095
E james@regionalbillboardco.com.au
M 0400 096 182

Regional Billboard Co.

LIGHTING IMPACT ASSESSMENT - OUTDOOR SIGNAGE AT
53 HUMFFRAY ST NORTH, BAKERY HILL, VICTORIA

20th March 2020
Ref: 2378.3

Lighting Impact Assessment
Outdoor Signage at 53 Humffray St North, Bakery Hill, Victoria

DATE	REV	COMMENT	PREPARED BY	CHECKED BY
20/03/20	REV B	For Information	DS	RS

Electrolight Australia Pty Ltd
ABN: 44 600 067 392

info@electrolight.com
www.electrolight.com

Suite 3.00
35-39 Liverpool Street
Sydney NSW 2000
T + 612 9267 4777

CONTENTS

1. INTRODUCTION

Electrolight have been appointed by Regional Billboard Co. to undertake a Lighting Impact Assessment on the digital signage proposed to be installed at 53 Humffray St North, Bakery Hill, Victoria. The objective of the assessment is to report on compliance with the VicRoads Advertising Policy and AS4282-2019 Control of the Obtrusive Effects of Outdoor Lighting.

2. DEFINITIONS

2.1 Illuminance

The physical measure of illumination is illuminance. It is the luminous flux arriving at a surface divided by the area of the illuminated surface. Unit: lux (lx); 1 lx = 1 lm/m2.

(a) Horizontal illuminance (Eh) The value of illuminance on a designated horizontal plane

(b) Vertical illuminance (Ev) The value of illuminance on a designated vertical plane

Where the vertical illuminance is considered in the situation of potentially obtrusive light at a property boundary it is referred to as environmental vertical illuminance (Eve).

2.2 Luminance

The physical quantity corresponding to the brightness of a surface (e.g. a lamp, luminaire or reflecting material such as the road surface) when viewed from a specified direction. SI Unit: candela per square metre (cd/m2) – also referred to as “nits”.

2.3 Luminous Intensity

The concentration of luminous flux emitted in a specified direction. Unit: candela (cd).

2.4 Obtrusive Light

Spill Light which, because of quantitative, directional or spectral attributes in a given context, gives rise to annoyance, discomfort, distraction or a reduction in the ability to see essential information.

2.5 Threshold Increment

The measure of disability glare expressed as the percentage increase in contrast required between a standard object and its background (the carriageway) for it to be seen equally as well with the source of glare present as with it absent, derived in the specified manner. This metric is directly related to Veiling Luminance.

NOTE: The required value is a maximum for compliance of the lighting scheme.

2.6 AGI32 Light Simulation Software

AGI32 (by U.S. company Lighting Analysts) is an industry standard lighting simulation software package that can accurately model and predict the amount of light reaching a designated surface or workplane. AGi32 is a has been independently tested against the International Commission On Illumination (CIE) benchmark, CIE 171:2006, Test Cases to Assess the Accuracy of Lighting Computer Programs.

2.7 Upward Light Ratio (ULR)

The ratio between the luminuous flux emitted above the horizontal plane to the total flux emitted by a light source. The ULR is used as a measure to limit direct spill light to the sky.

3. SITE DESCRIPTION AND SCOPE

The proposed digital signage is located on the facade of the property at 53 Humffrat St North. The signage wraps around the facade with frontage to Mair St East and Humffray St North. The total active display (illuminated) area of the proposed signage is 16m2 and it is to be operated 24 hours a day. Refer Appendix A for proposed signage location plan and elevations.

The proposed digital signage is illuminated using LEDs installed within the front face. The brightness of the LEDs shall be controlled to provide upper and lower thresholds as required as well as automatically via a local light sensor to adjust to ambient lighting conditions.

The supplier of the signage is Big Screen Video, with performance parameters as outlined in Appendix B. The signage includes baffles to mitigate upward waste light, resulting in an Upward Light Ratio (ULR) of less than 50%. Alternative digital sign manufacturers may be used for this installation as long as they have equivalent lighting and performance characteristics and are commissioned as described in this report.

4. DESIGN GUIDELINES AND STANDARDS

The Lighting Impact Assessment will review the proposed digital signage against the following Criteria, Design Guidelines and Standards.

- VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves.
- AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting.
- Transport Corridor Outdoor Advertising & Signage Guidelines 2017 *

* The Transport Corridor Outdoor Advertising & Signage Guidelines apply to installations within New South Wales only, as such this is not a strict requirement for the installation but has been provided for information as a basis for comparison.

5. LUMINANCE ASSESSMENT

The maximum permissible night time luminance of the signage is determined by the existing lighting environment of its surroundings. AS4282 outlines maximum average luminances for different Environmental Zones as shown in Table 1 below:

TABLE 1 - MAXIMUM NIGHT TIME AVERAGE LUMINANCE FOR SIGNAGE		
Environmental Zone	Description	Max Average Luminance (cd/m2)
A4	High district brightness e.g. Town and city centres, commercial areas, and residential areas abutting commercial areas	350
A3	Medium district brightness e.g. suburban areas in towns and cities	250
A2	Low district brightness e.g. sparsely inhabited rural and semi-rural areas	150
A1	Dark e.g. relatively uninhabited rural areas. No Road Lighting	0.1
A0	Intrinsically Dark e.g. Major Optical Observatories. No Road Lighting	0.1

Note: Where the signage is viewed against a predominantly dark background (e.g. night sky) then the maximum applicable environmental zone is A2

Based on an assessment of the surrounding environment, the proposed signage is located within Environmental Zone A4. Hence, the maximum permissible night time luminance of the signage is 350cd/m2.

AS4282 does not include limits for daytime operation of illuminated signage. However, the Transport Corridor Outdoor Advertising & Signage Guidelines in NSW outlines maximum permissible luminance limits for various lighting conditions, including daytime, and hence shall be used for assessment purposes.

Table 2 outlines the maximum luminance levels to comply with AS4282 and the Transport Corridor Outdoor Advertising & Signage Guidelines for the various lighting conditions listed below:

TABLE 2 - LUMINANCE LEVELS FOR DIGITAL ADVERTISEMENTS		
Lighting Condition	Max Permissible Luminance (cd/m2) #	Compliant
Full Sun on face of Signage	No Limit	✓
Day Time Luminance (typical sunny day)	6000	✓
Morning and Evening Twilight and Overcast Weather	700	✓
Night Time	190*	✓

The signage is to be dimmed on site to ensure the maximum luminance nominated above is not exceeded.

* The maximum permissible luminance allowable under AS4282 and the Transport Corridor Outdoor Advertising & Signage Guidelines is actually 350 cd/m2. The luminance limit shown above was derived as a result of the calculation and assessment in Section 5 and 6, to ensure compliance with other criteria of AS4282 and any additional lighting requirements as described in this report.

The proposed digital signage has a maximum brightness (luminance) of 7000 cd/m2. The screen shall be commissioned on site to yield a maximum screen luminance of 7000 cd/m2 when full sun strikes the face of the sign (maximum brightness), 6000 cd/m2 during normal daytime operation, 700 cd/m2 during twilight and inclement weather and 190cd/m2 during night time.

VicRoads Veiling Luminance Assessment

The VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves outlines a maximum allowable veiling luminance of 0.25 cd/m2 for a driver throughout the approach to an illuminated sign.

The proposed signage (and surrounding environment) was modeled in lighting calculation program AGI32 to determine the veiling luminance for the traffic travelling on Humffray St North (southbound), Humffray St North (northbound), Mair St East left turning lane (eastbound), Mair St East (eastbound), Mair St East right turning lane (eastbound), Mair St East (westbound) and Mair St East right turning lane (westbound). Photometric data for the screen was based on a diffused light panel (approximating a lambertian emitter) with a luminance corresponding to the night time limit outlined in the table above.

The calculation grids have been located at 1.5m above ground level, with an approach viewing distance of between 10m to 200m from the sign and a windscreen cutoff angle of 20 degrees (as outlined in AS1158). The calculation results of the model show that the veiling luminance from the signage does not exceed 0.236d/m2 for all traffic approaches (refer Appendix C).

It can therefore be seen that the proposed signage complies with the maximum veiling luminance of 0.25 cd/m2 as described in VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves.

6. AS4282 ASSESSMENT

The proposed digital signage has been assessed against AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting as outlined in Section 4.

AS4282 provides limits for different obtrusive factors associated with dark hours (night time) operation of outdoor lighting systems. Two sets of limiting values for spill light are given based on whether the lighting is operating before a curfew (known as “pre-curfew” operation) or operating after a curfew (known as post-curfew or curfewed operation). Pre-curfew spill lighting limits are higher than post-curfew values, on the understanding that spill light is more obtrusive late at night when residents are trying to sleep. Under AS4282, the post-curfew period is taken to be between 11pm and 6am daily. As it is intended that the digital signage be illuminated all night, the assessment will review the proposed signage under the more stringent post-curfew limits.

Illuminance Assessment

The AS4282 assessment includes a review of nearby residential dwellings and calculation of the amount of illuminance (measured in Lux) that the properties are likely to receive from the signage during night time operation.

The acceptable level of illuminance will in part be determined by the night time lighting environment around the dwellings. AS4282 categorises the night time environment into different zones with maximum lighting limits as shown in Table 3 below:

TABLE 3 - MAXIMUM VALUES OF LIGHT TECHNICAL PARAMETERS

Environmental Zone	Max Vertical Illuminance (lx)		Description
	Pre-curfew	Post-curfew	
A0	0	0	Intrinsically Dark e.g. Major Optical Observatories. No Road Lighting
A1	2	0.1	Dark e.g. relatively uninhabited rural areas. No Road Lighting
A2	5	1	Low district brightness e.g. sparsely inhabited rural and semi-rural areas
A3	10	2	Medium district brightness e.g. suburban areas in towns and cities
A4	25	5	High district brightness e.g. Town and city centres, commercial areas, and residential areas abutting commercial areas

Based on an assessment of the surrounding areas, the nearest dwellings that appear residential and have potential views to the signage are at the following locations:

Address	Zone
*9-11 Humffray St North	A4

*Future development, not currently constructed.

As such, the dwellings above will form the focus of the illuminance assessment.

The proposed signage (and surrounding environment) was modeled in lighting calculation program AGI32 to determine the effect (if any) of the light spill from the proposed signage. Photometric data for the screen was based on a diffused light panel (approximating a lambertian emitter) with luminances corresponding to the night time limit outlined in Section 5. Appendix D shows the lighting model and the

results of the calculations.

It should be noted that some of the houses are shielded by mature vegetation which effectively obstructs the spill light of the signage. However calculations were undertaken assuming there was no vegetation present as outlined in AS4282.

During night time operation, it can be seen from the lighting model that the maximum illuminance to future dwellings in Zone A4 is 0.56 lux at 9-11 Humffray St North. This illuminance level complies with the maximum AS4282 limit of 5 lux outlined in Table 3.

Threshold Increment Assessment

The Threshold Increment was also calculated for traffic travelling along Humffray St North (southbound), Humffray St North (northbound), Mair St East left turning lane (eastbound), Mair St East (eastbound), Mair St East right turning lane (eastbound), Mair St East (westbound) and Mair St East right turning lane (westbound). The calculation results show that the Threshold Increment does not exceed 4.23% for all traffic approaches (the allowable maximum is 20%).

Luminous Intensity

The luminous intensity limits nominated in the standard are not applicable for internally illuminated signage.

Additional Requirements

- The signage operator must ensure that the average luminance difference between successive images does not exceed 30% to ensure compliance with AS4282. The dwell time shall be 10 seconds or greater.

Summary

It can therefore be seen that the proposed digital signage complies with all relevant requirements of AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting.

7. SUMMARY

- The proposed signage to be installed at 53 Humffray St North, Bakery Hill, shall be commissioned on site to yield the following maximum luminances:

LUMINANCE LEVELS FOR DIGITAL ADVERTISEMENTS		
Lighting Condition	Max Permissible Luminance (cd/m2)	Compliant
Full Sun on face of Signage	No Limit	✓
Day Time Luminance (typical sunny day)	6000	✓
Morning and Evening Twilight and Overcast Weather	700	✓
Night Time	190	✓

- The signage operator must ensure that the average luminance difference between successive images does not exceed 30% to ensure compliance with AS4282. The dwell time shall be 10 seconds or greater to comply with AS4282.
- The proposed signage to be installed at 53 Humffray St North, Bakery Hill has been assessed and complies with the maximum veiling luminance of 0.25 cd/m2 as described in VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves (when commissioned to the maximum luminance levels above).
- The proposed signage has been found to comply with all relevant requirements of AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting
- In complying with the above requirements, the proposed signage should not result in unacceptable glare nor should it adversely impact the safety of pedestrians, residents or vehicular traffic. Additionally, the proposed signage should not cause any reduction in visual amenity to nearby residences or accommodation.

8. DESIGN CERTIFICATION

The proposed digital signage to be installed at 53 Humffray St North, Bakery Hill, Victoria, if commissioned according to this report, complies with the following criteria, guidelines and standards:

- VicRoads Advertising Policy for Advertising On, Over and Adjacent to VicRoads declared Road Reserves (relevant Lighting Requirements).
- AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting.

Ryan Shamier

Senior Lighting Designer

Electrolight Sydney

20/03/2020

APPENDIX A

SIGN LOCATION PLAN AND ELEVATIONS

BAKERY HILL - PROPOSED ELECTRIC PROMOTION SIGN

53 HUMFFRAY STREET NORTH, BAKERY HILL, VIC 3550

TOWN PLANNING DRAWINGS

PHOTO 01

PHOTO 02

PHOTO 03

PHOTO 04

KEY PLAN
SCALE 1: 500

PHOTO LEGEND

NO.	DESCRIPTION
01	PHOTOGRAPHIC VIEW NORTH FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.
02	PHOTOGRAPHIC VIEW EAST FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.
03	PHOTOGRAPHIC VIEW SOUTH FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.
04	PHOTOGRAPHIC VIEW WEST FROM THE PROPOSED LOCATION OF THE PROMOTION SIGN.

ISSUE/AMMENDMENTS SCHEDULE

01 10.02.2020 TOWN PLANNING ISSUE

TOWN PLANNING

NOT FOR CONSTRUCTION

REGIONAL BILLBOARD CO.

PROJECT
BAKERY HILL - PROPOSED ELECTRONIC PROMOTION SIGN

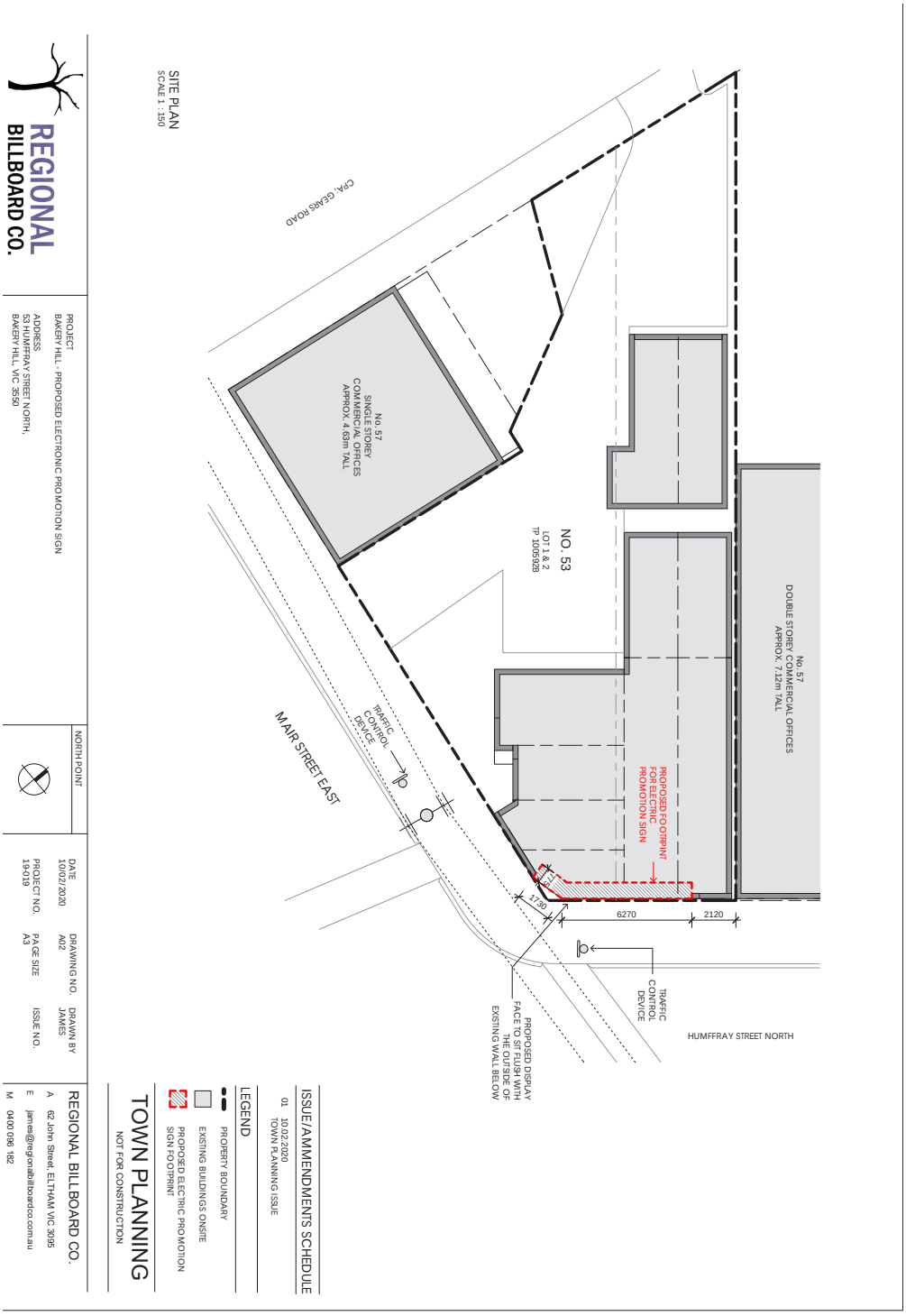
ADDRESS
53 HUMFFRAY STREET NORTH,
BAKERY HILL, VIC 3550

NORTH POINT

DATE 10/02/2020
PROJECT NO. 19-019
PAGE SIZE A3
DRAWING NO. A01
ISSUE NO. 01
DRAWN BY JAMES

REGIONAL BILLBOARD CO.
A 62 John Street, ELTHAM VIC 3095
E james@regionalbillboardco.com.au
M 0400 096 182

APPENDIX A
SIGN LOCATION PLAN AND ELEVATIONS



APPENDIX A
SIGN LOCATION PLAN AND ELEVATIONS

APPENDIX A
SIGN LOCATION PLAN AND ELEVATIONS

EXISTING PERSPECTIVE VIEW #01 - WESTBOUND TRAFFIC

PERSPECTIVE VIEW REFERENCE
SCALE 1 : 500

PROPOSED PERSPECTIVE VIEW #01 - WESTBOUND TRAFFIC

GENERAL NOTES

PROPOSED PERSPECTIVE VIEW IS AN ARTISTS IMPRESSION OF THE PROPOSAL ONLY. SIZE AND SCALE ARE REFERENCED ON THE FLOOR PLANS AND ELEVATIONS.

THE PROPOSAL SEEKS THE APPROVAL OF THE ERECTION OF AN ELECTRONIC PROMOTION SIGN

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE SUPPLIED TOWN PLANNING REPORT

REFER TO THE TOWN PLANNING REPORT FOR THE WRITTEN STATEMENT REGARDING THE METHODOLOGY DURING THE PREPARATION OF PERSPECTIVE VIEWS

ISSUE/AMMENDMENTS SCHEDULE

01	10.02.2020	TOWN PLANNING ISSUE

LEGEND

#00 PERSPECTIVE VIEW - LOCATION IN WHICH PHOTOGRAPHIC VIEWS WERE TAKEN

TOWN PLANNING
NOT FOR CONSTRUCTION

REGIONAL BILLBOARD CO.

REGIONAL BILLBOARD CO.

PROJECT
BAKERY HILL - PROPOSED ELECTRONIC PROMOTION SIGN

ADDRESS
53 HUMFFRAY STREET NORTH,
BAKERY HILL, VIC 3550

NORTH POINT

DATE 10/02/2020
PROJECT NO. 19-019

DRAWING NO. A04
PAGE SIZE A3

DRAWN BY JAMES
ISSUE NO.

REGIONAL BILLBOARD CO.
A 62 John Street, ELTHAM VIC 3095
E james@regionalbillboardco.com.au
M 0400 096 182

APPENDIX B
DIGITAL SIGNAGE SPECIFICATION

[DISPLAY SPECIFICATION]

SUPER 8 Display Spec

OPTION 1	
Active Screen Size (WxH)	8m x 2.08m
Active Screen Size (Square Dimensions)	16.64sqm
Matrix Size (WxH)	8000 pixels x 2008 pixels
Aspect Ratio	3.85:1
Display Weight	965kg
Display Weight per Square Dimension	58kg/m²

[We Share **Your Vision!**]

[PRODUCT SPECIFICATION]

Outdoor 10mm

Product Specifications	
Physical Pitch	10mm, physical
Pixel Density	10,000 pixel/m²
Pixel Configuration	SMD LED
Module Dimensions (WxH)	320mm x 160mm
Module Resolution (WxH)	32 x 16 pixels
Cabinet Material	Steel
Viewing Angle	H 140 Deg. / V 140 Deg.
Best Viewing Distance	10+m
Maintenance	Rear access
Protection Degree	IP65 front; IP54 rear
Panel Net Weight	approx. 58kg/sqm
Luminance	7000 nits

Product Specifications	
Gray Scale	16-bit Color Processing Depth
Refresh Rate	1920+ Hz
Display Control	Synchronous control
Power Supply	220V, 50Hz
Operation Temp.	-20° ~60°
Display Dimming	Auto/Manual, 8~256 Levels
Signal Transfer	Single Mode Fiber Optic within 1500mm
Display Capacity	Text, image, graphics animations, video
Power Consumption (Max./Avg.)	0.6kw/sqm; 0.2kw/sqm
MTBF	50,000hrs
Lifetime	100,000 hours
Warranty	5 years

[We Share **Your Vision!**]

APPENDIX C
VEILING LUMINANCE & OBTRUSIVE LIGHTING CALCULATIONS

Calculation Summary			
Label	CalcType	Units	Max
9-11 Humffray St North_Cd_Seg1	Obtrusive - Cd	N.A.	14
9-11 Humffray St North_Cd_Seg2	Obtrusive - Cd	N.A.	17
9-11 Humffray St North_Ill_Seg1	Obtrusive - Ill	Lux	0.56
9-11 Humffray St North_Ill_Seg2	Obtrusive - Ill	Lux	0.26

Environmental Zone Legend:

- A0
- A1
- A2
- A3
- A4

APPENDIX C
VEILING LUMINANCE & OBTRUSIVE LIGHTING CALCULATIONS (POST-CURFEW OPERATION

Calculation Summary			
Label	CalcType	Units	Max
Mair St East right turning lane (Westbound)	Obtrusive - TI	%	2.42
Mair St East left turning lane (Eastbound)	Obtrusive - TI	%	0.00
Mair St East right turning lane (Eastbound)	Obtrusive - TI	%	0.01
Mair St East (Westbound)	Obtrusive - TI	%	0.28
Mair St East (Eastbound)	Obtrusive - TI	%	0.00
Humffray St North (Southbound)	Obtrusive - TI	%	0.33
Humffray St North (Northbound)	Obtrusive - TI	%	4.23
Mair St East right turning lane (Westbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.135
Mair St East left turning lane (Eastbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.000
Mair St East right turning lane (Eastbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.001
Mair St East (Westbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.016
Mair St East (Eastbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.000
Humffray St North (Southbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.019
Humffray St North (Northbound)_Lv	Obtrusive - Lv	Cd/Sq.m	0.236

APPENDIX C

VEILING LUMINANCE & OBTRUSIVE LIGHTING CALCULATIONS

Obtrusive Light - Compliance Report

AS/NZS 4282:2019, A4 - High District Brightness, Curfew
Filename: 200317_53 Humffray St North LIA_Rev B
17/03/2020 5:35:27 PM

Illuminance

Maximum Allowable Value: 5 Lux

Calculations Tested (2):

Calculation Label	Test Results	Max. Illum.
9-11 Humffray St North_Ill_Seg1	**PASS**	0.56
9-11 Humffray St North_Ill_Seg2	**PASS**	0.26

Threshold Increment (TI)

Maximum Allowable Value: 20 %

Calculations Tested (7):

Calculation Label	Adaptation Luminance	Test Results
Humffray St North (Southbound)	5	**PASS**
Mair St East left turning lane (Eastbound)	5	**PASS**
Mair St East (Eastbound)	5	**PASS**
Mair St East right turning lane (Eastbound)	5	**PASS**
Humffray St North (Northbound)	5	**PASS**
Mair St East (Westbound)	5	**PASS**
Mair St East right turning lane (Westbound)	5	**PASS**

PLANNING PERMIT APPLICATION

PROJECT	**Proposed Single Sided, Electronic, Promotion Sign**
LOCATION	**53 Humffray Street North, Bakery Hill VIC 3350**
DATE	**February 10, 2020**

1. CONTENTS

Regional Billboard Co Pty Ltd
A 62 John St, Eltham VIC 3095
E james@regionalbillboardco.com.au
P 0400 096 182

2. INTRODUCTION

2.1. Overview of Regional Billboard Co

Regional Billboard Co Pty Ltd ("RBC") is a family run business that develops, owns and operates outdoor advertising billboards throughout Victoria – primarily in regional areas. The company was founded by James & Luke Course – who have extensive experience in Outdoor Advertising, Town Planning and Managing Projects. The business was founded to ensure that local and regional businesses have access to Outdoor Advertising to grow their businesses.

2.2. Outdoor Advertising Industry

While traditional forms of media (radio, television, print) have been in decline for the past decade, Outdoor has been flourishing and has been used by a huge number of businesses to grow. Total out of home industry revenue in Australia has grown for the past 8 consecutive years, with over 6% growth from 2016-2017 (source:OMA).

2.3. Advertising Content

At RBC we pride ourselves on helping local businesses grow using outdoor advertising. Companies within a small radius to our advertising signs will always take preference over large nationwide advertising campaigns. Typically at least 50% of the advertising content is for businesses located within a 5km radius of the sign. Road safety messages from the TAC are also very common across regional billboards.

We currently have sites throughout regional Victoria, local businesses within a 5km radius of these sites currently have a 81% share of the advertising content. This record proves how strongly we value our promise to local businesses and the economic development of regional communities. The remaining 19% has been booked by TAC with road safety messages.

Advertising content is governed by the Australian Advertising Standards Bureau – which has a code of ethics in addition to industry specific controls for sensitive industries such as alcohol. The code of ethics is strictly obeyed and does not allow for religious, racist, sexually explicit or offensive advertising content.

2.4. Community Benefits

Our billboards help grow local businesses as well as attract visitors to the town. Advertisements often prompt travellers to stop in that town which puts money in the local economy when motorists may have not otherwise stopped. In addition to the immense benefits for advertiser's RBC provides value to it's landlords from which it leases property. Our landlords receive fixed rent payments each year throughout our lease term which can provide stability and increase their property value.

3. SITE SELECTION

When seeking a site in an area there are numerous factors that are considered. RBC seeks to work within the planning policies and frameworks within the council and avoids sites that have planning overlays which discourage major promotion signs. Properties in commercial and industrial areas along major highways and arterial roads are typically what RBC looks for.

Properties owned by local property owners and small businesses are prioritised over large national investors. When choosing the exact location on the property we seek an area that is currently unused and will not impact the day-to-day use of the property. It is also important to ensure the location where the sign will be located does not inhibit any development or future plans for the property. This collaboration is important to us as having a positive relationship with our property owners is something we pride ourselves on.

During the site selection process, RBC focuses on areas outside the realm of residentially utilised and zoned properties. Ensuring there is always an extended visual and spatial barrier between the proposal and any potentially effected residential properties. The major focus is to identify areas with a built form character where the size and scale of the proposed sign will be justified by the surrounding context of the proposed site.

4. SITE DESCRIPTION & EXISTING CONDITIONS

4.1. Site Description

The Subject Site is a commercially zoned property with a use that fits within that zoning. It is owned by Brezza Investments Pty Ltd – a Victorian business that has owned this site since 2016. The property is currently occupied by the Government and operates as Wellways. The property includes two titles – Lots 1 & 2 on TP100592B. Both lots share the same ownership and the built form extends over both lots.

The primary built form on the site abuts the Humffray and Mair Street frontages. Its architecture addresses its street corner setting, with a glazing wrapping the around the façade at pedestrian level. The building is single storey and approximately 5m in height. It is brick veneer construction with a uniform cream coloured render finish all over. This is visually reflective of surrounding commercial uses. The size and scale of the this building is out of character with its direct and broader context. Typically buildings are double storey and/or have a larger footprint than the building on the subject site.

The property has an irregular shape with direct frontages to Mair Street East (19.4m) and Humffray Street North (9.5m). The built form covers approximately 65% of the site, with the other 35% (to the west) utilised as hard surface car parking and vehicle circulation.

Vehicles access is via the right of way (Gears Road) to the west. A single driveway in the North-West corner of the block is used by vehicles to access the property. There is another small (less used) crossover to Mair Street with gated access to the subject site. This driveway is concreted and connects with the Gears Road access.

The site has limited existing signage – with business identification signs displayed in the glazing of the East and South facades. This is out of character with its surrounding context, where properties typically display corporate colours and large business identification signs.

The topography of the site falls from the Humffray Street boundary (eastern) down to the western boundary. This gradient continues outside the property boundaries with the land falling down to Peel Street (Approx. 150m to the West). The topography to the North, East and South is more even and generally flat.

The proposed Promotion sign will target traffic travelling northbound on Humffray Street and westbound on Mair Street. There will also be viewshed to Southbound traffic along Humffray Street, who will have limited views to the sign.

A copy of the sites certificate of title and associated title plan are attached as part of this town planning submission.

Figure 1 – Aerial Photograph of Subject Site

4.2. Surrounding Context

Figure 2 – Aerial Photograph of Surrounding Area

The locality characteristics are:

- To the northern boundary lies 57 Humffray Street – a double storey commercially zoned property occupied on the ground floor by New Value Hair and Beauty with offices above.
- The eastern boundary abuts Humffray Street North. To the opposite side of the road lies Ballarat Leagues Club and drive through bottle shop.
- To the southern boundary lies Mair Street East. On the opposite side of the road lies the large scale Ballarat Antiques Centre.
- The western boundary abuts 57 Mair Street East a single storey commercial office and Gears Road. To the opposite side of Gears road lies a large commercial subdivision housing Lincraft and Clark Rubber.

Mair Street East forms the northern boundary of the Ballarat Central Business District (CBD). To the north, the railway delineates between the CBD and adjoining residential areas. The subject site is nestled into the commercial orientated CBD precinct, with an interface in all directions of commercially utilised properties. A variety of businesses occupy these adjoining properties, but all are commercial in nature. All properties along Mair and Humffray St recognise there main road frontages. Glazing is displayed at pedestrian level, with commercial colouration, wall mounted and freestanding signage projecting to passing traffic.

The area is strongly commercial in nature, with little exception. The existing streetscape is littered with key bulky goods tenancies like Clark Rubber, Pet Stock, Forty Winks, Godfreys, Big W, the Good Guys and Coles. The Bulky Goods retailing defines the character of the area via its scale and signage. A vibrant character which accommodates and provides for the proposed sign.

This is a key development precinct in Ballarat as identified in several local policies (detailed later in this report). It is expected that larger scale development will occur (up to 6 storeys) over time. These policies ensure the proposal will fit in with the existing and desired future character of the area. The proposed sign is sited to ensure future development is not prohibited.

The Mair and Humffray Streestcapes typically display boundary to boundary buildings. Only broken up by access roads connecting rear carparks to these major thoroughfares. The buildings in this precinct are of alternating sizes and scale. Built forms are typically 1 or 2 storeys, and 4-10m in height. Although there is no synonymous height or scale to buildings, a built form character is evident. Images of the surrounding built form is shown in Appendix 5.

As is typical in commercial areas signage is very common, which is evident throughout the Ballarat CBD. There are examples of Major Promotion Signs, Electronic Major Promotion Signs and other third party advertising signage. The compilation of business identification signs and third party signage create a distinct advertising theme. Images of the signage on surrounding properties and throughout the CBD is shown in Appendix 5.

The appropriate zoning and the robust commercial context were key factors in choosing this site for this development. Several recent decisions by the City of Ballarat on similar applications were reviewed – which made it clear that the Ballarat Entrances Strategy and any Heritage Overlays would be given tremendous weight in a decision. The Subject Site is not in an entrance to Ballarat and does not have a heritage overlay.

5. PROPOSED DEVELOPMENT

5.1. Description of Proposed Development

The proposal seeks approval for the erection and display of a single sided, electronic, promotion sign to the property at 53 Humffray Street North, Bakery Hill including the display of third-party advertising within the proposed advertising area specified on the attached town planning documentation.

The proposed promotion sign (as detailed in the attached town planning package) proposes two display faces. One 12.54m² face viewed westbound traffic along Mair Street and one 3.46m² face viewed by northbound traffic along Humffray Street.

The proposal includes the extension of the existing parapet wall to align with the adjoining double storey building at 57 Humffray St. Providing a 2m wide infill wall between the display face and the property boundary. This extension and infill wall will be finished to match the existing render.

In addition to this display face, there will be a permanent 0.72m² business identification sign located on the infill wall between the display face and property boundary. The proposed sign will be electronic. Refer to the town planning documentation for further details.

5.2. Design Response

The proposal is carefully sited and designed, to ensure that:

- It has a clear connection to the built form on the subject site and adjoining properties. The additional design measures (infill parapet wall) positively address the civic setting of the subject site. Providing a more compatible design outcome which mediates between the single and double storey buildings.
- The location of the sign allows local advertisers to reach a key audience in a major thoroughfare through Ballarat. Drawing traffic into commercial and retail premises as they traverse through the CBD.

- The height of the proposed sign has been carefully designed to align with the built form of the building at 57 Humffray St. This will ensure the sign fits in to its direct context. The broader context includes an abundance of large scaled buildings and signage. The subject site and proposed sign will appear visual and prominent without dominance over the streetscape.
- The site was carefully selected due to its location within one of the main commercial precincts in Ballarat and outside the realm of any residentially zoned properties. This ensures the effects on the surrounding properties is minimal.
- It was also important that the site is outside of any roads designated as entrances to Ballarat.
- The promotion sign is located in a manner which compliments its context, and purposely sited to ensure the visibility to the subject site and abutting properties is not unreasonably affected.
- There was a historic planning application of a similar nature on the subject site (PLP/2017/773). The primary concern and reason for refusal related to road safety. We believe the revised proposal and additional information supplied adequately addresses this concern. An opinion which is shared by VicRoads who have no objection to the proposal. Refer to appendix 08 for a copy of correspondence.

All surrounding properties have a consideration for the robust commercial precinct. Almost all properties are designed to be visible and prominent for passing traffic. This is reinforced by the frequency of signage in the area – a clear theme which can be viewed in Appendix 5.

6. STATUTORY PLANNING CONTROLS

6.1. Zoning

The subject site is situated within the Commercial – Zone 1, therefore the following items are relevant to the proposal outlined in this application:

- Promotional signs are encouraged in commercial and industrial locations in a manner which complements or enhances the character of the area. To which the subject site and surrounds are strongly commercial in its existing character.
- Advertising sign requirements are at Clause 52.05. This zone is in Category 1 (minimum limitation).

Refer to Appendix 4 for a detailed response to the provisions and requirements set out in Clause 52.05.

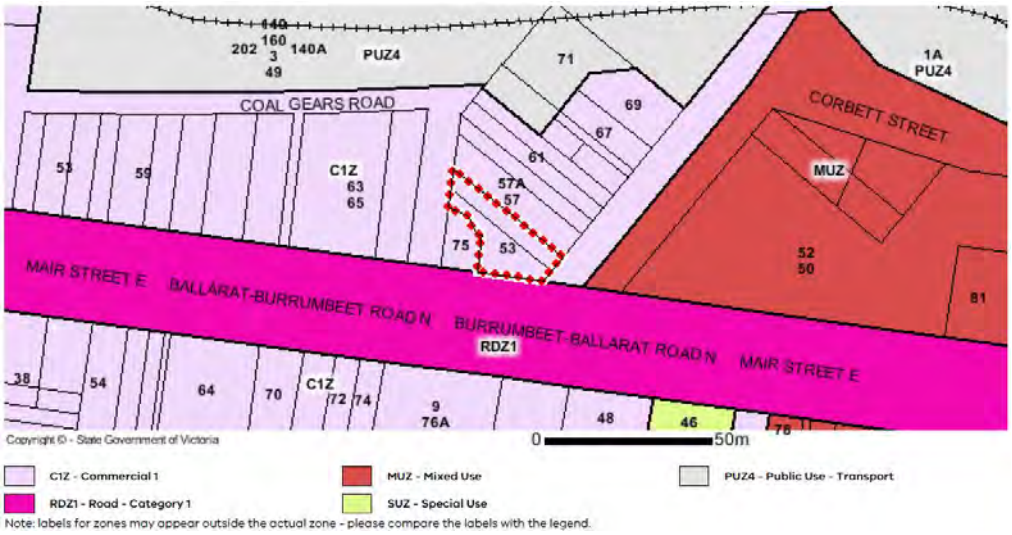


Figure 3 – Zone Controls of the Site & Surrounds

6.2. Overlays

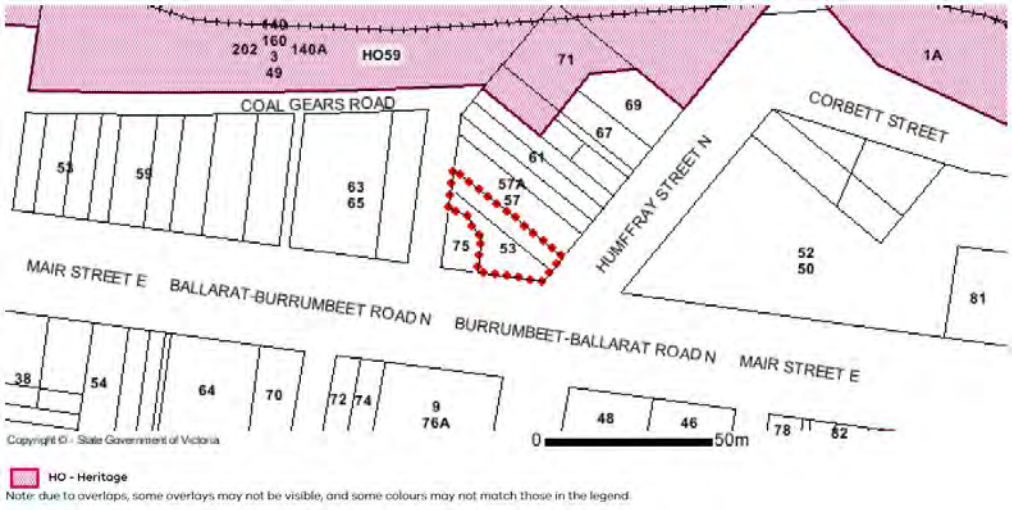
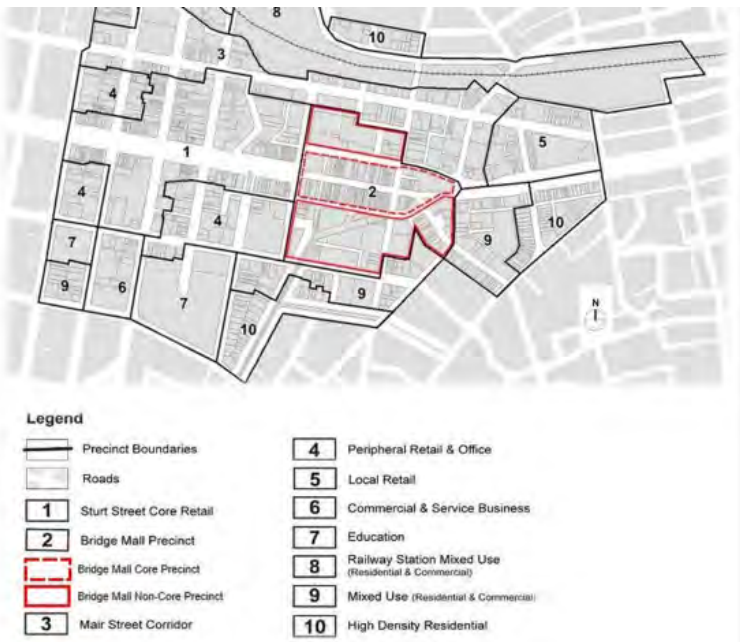


Figure 4 – Nearby Overlays

There are no overlays on the subject site. There is a heritage overlay on the nearby Railway line. The adjoining commercial buildings already block views to these heritage areas, so there are no detrimental effects on these heritage locations.

7. LOCAL PLANNING POLICIES

Clause 21.09.01 Local Areas: CBD



The Subject Site is clearly within precinct 3 (Mair St Corridor) in the above map. This policy directs readers to consider the objectives, strategies and actions of the CBD Strategy: Making Ballarat Central. This will be discussed below.

CBD Strategy: Making Ballarat Central (2010) – Strategies & Actions

The subject site is within an area where higher density buildings are encouraged (up to 6 storeys). The proposed sign will not affect any future development on the site – as it would be incorporated into the design. This policy does reinforce the strength of the design of the sign – with regard to it's location on the rooftop with cladding surrounding the sign to best integrate it with the existing building and neighbouring sites.

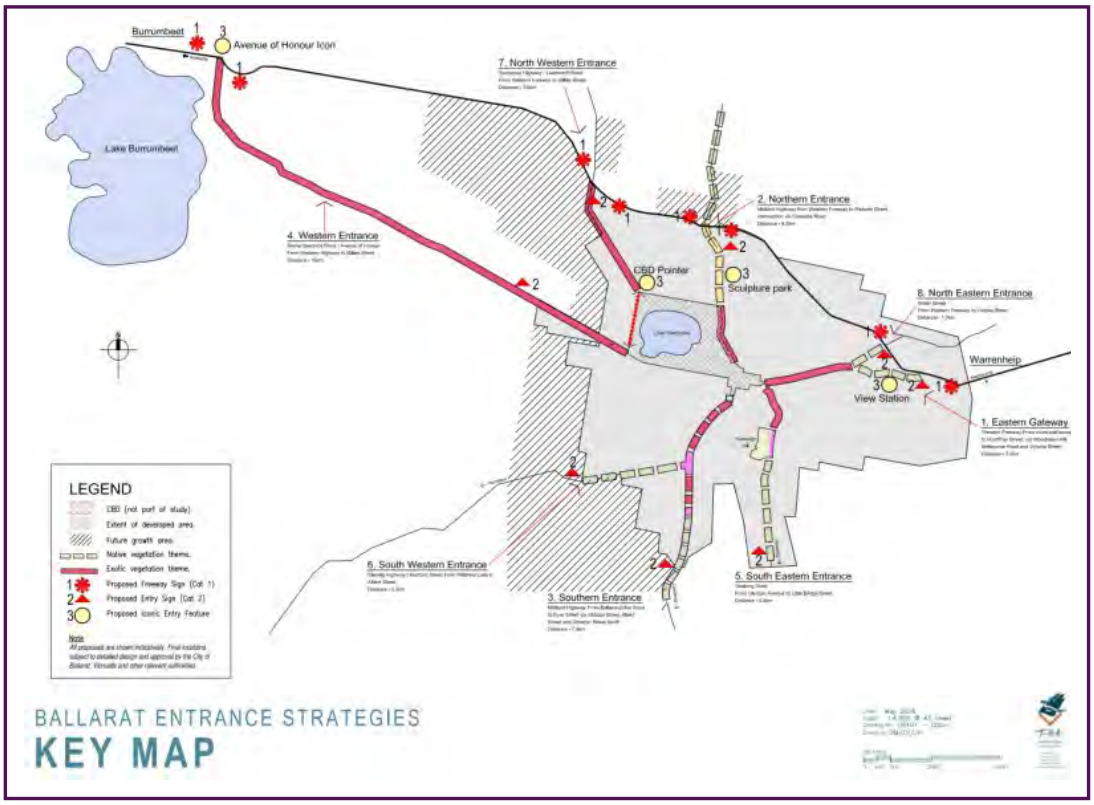
BD Strategy: Making Ballarat Central (2010) – Precinct 3

Sites along Mair Street are some of the largest in the CBD. Many are underutilised or contain older buildings nearing the end of their economic life and some have no heritage significance. This provides an opportunity to develop not available elsewhere in the CBD and, in particular, a major growth opportunity for the office sector.

At a high level – this report identifies this Mair St Corridor as one of the most suited to future development in the Ballarat CBD. It acknowledges there are few heritage issues or other constraints. This was a key reason why this site was chosen for the proposed sign. Even within Precinct 3, the exact location of the subject site is not associated with any special commentary.

Many other precincts in the CBD have language dealing with advertising signs (usually aiming to reduce the number of signs or dominance of signs), yet Precinct 3 has no such language. This is particularly the case in CBD entry points, of which the Subject Site is not within.

Ballarat Entrances Strategy 2006



The above map clearly shows the Subject Site is not within an entrance or an area with a vegetation theme. This was given enormous weight in choosing this site, noting several recent decisions from the City of Ballarat on other applications for Promotion Signs.

Ballarat Advertising Signs Policy

The local advertising signs policy includes a range of high-level policies which relate to all signage developments in Ballarat City Council. Most of the policy simply reinforces principles contained in 52.05. There is no content relating to electronic promotion signs at all.

The proposed sign is located outside the realm of sensitive areas, such as;

- Tourist Roads
- Scenic Routes
- Landscape sections of freeways
- Open space reserves or corridors
- Around waterways
- Residential areas
- Heritage places
- Significant view lines

Consideration for the aforementioned sensitive areas was factored into our site selection process. We selected the site as it within a robust commercial precinct and outside of the realm of heritage areas, which are very common within Ballarat CBD.

8. CONCLUSION

In conclusion, we submit that:

- The proposal seeks the approval for the development of an electronic promotion sign at 53 Hummfray St N, Bakery Hill.
- The proposal is clearly supported by local policies as the site is located in what has been identified as a key commercial area in Ballarat. Of all areas in the Ballarat Ballarat CBD this is one of the most robust in nature. It also avoids any key gateway areas and most importantly, areas of historical significance.
- The proposal employs a high level of consideration to the provisions and policies set out about advertising signage in clause 52.05.
- The proposal is consistent with the built form on the subject site and surrounding properties. The design has carefully considered the height of nearby buildings and has ensured no views will be impacted.
- Unlike when a similar application was submitted on the subject site previously, Vicroads has now provided support for the application and ruled out any road safety issues.
- The proposed sign is very similar in design and locality to the recently approved electronic major promotion sign at 75 Curtis St. They both are outside of the realm of heritage areas and are located on the rooftop of a single story building, with cladding.

Overall, we conclude that the proposed development is consistent with the relevant state and local planning policies. The development also addresses the strategic directions and policy objectives of the City of Ballarat.

9. APPENDIX 1 – COPY OF TITLE

VOLUME 10009 FOLIO 982 Security no : 124081544162U
Produced 10/02/2020 09:29 AM

LAND DESCRIPTION

Lots 1 and 2 on Title Plan 100592B.
Created by Application No. 068099T 23/10/1990

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
BREZZA INVESTMENTS PTY LTD of 78 PEARCE STREET NATHALIA VIC 3638
AM706845G 15/04/2016

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AM706846E 15/04/2016
BENDIGO AND ADELAIDE BANK LTD

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP100592B FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

ADMINISTRATIVE NOTICES

NIL

eCT Control 03500L BENDIGO AND ADELAIDE BANK LTD - SAFE CUSTODY
Effective from 21/07/2017

DOCUMENT END

10. APPENDIX 2 – COPY OF PLAN

TITLE PLAN		EDITION 1	TP 100592B

Location of Land

Parish: BALLARAT
Township: BALLARAT EAST
Section: B3
Crown Allotment: 4(PT) 5(PT)
Crown Portion:

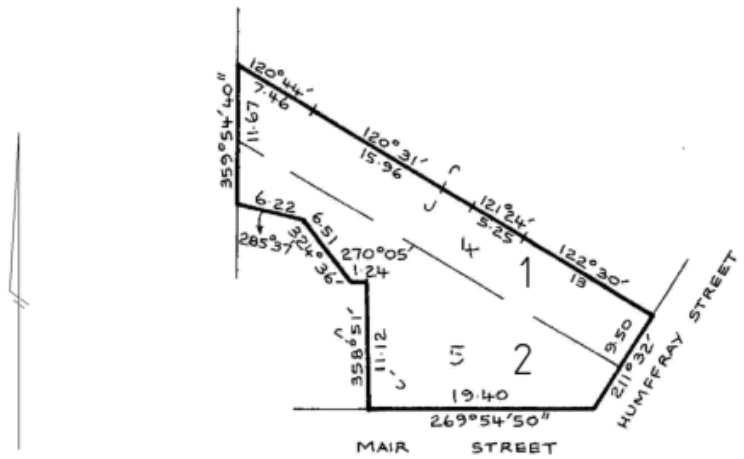
Last Plan Reference:
Derived From: VOL 10009 FOL 982
Depth Limitation: NIL

Notations

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT
COMPILED: 09/08/1999
VERIFIED: BE



TOTAL AREA : 490 m²

TABLE OF PARCEL IDENTIFIERS
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962
PARCEL 1 = CA 4 (PT)
PARCEL 2 = CA 5 (PT)

LENGTHS ARE IN METRES	Metres = 0.3048 x Feet Metres = 0.201168 x Links	Sheet 1 of 1 sheets

11. APPENDIX 3 – PERSPECTIVE VIEWS WRITTEN STATEMENT

Prepared By:	James Course
Qualification:	Advanced Diploma of Building Design (Architectural) *Including: BUIL5922 – Undertake site survey and analysis to inform design process*
Software:	Adobe Photoshop Creative Cloud *Informed by: Site features and measurements plan prepared in Autodesk Revit 2018*
Methodology:	Relevant data obtained from site measure up performed by James Course in conjunction with topographical maps from various online sources: *services.land.vic.gov.au/maps & https://www.google.com.au/maps*
Perspective View 01:	Camera: Huawei Mate 9 Type: Digital Lens Size: 27mm Angle: Landscape – Parallel to ground Date: 06/02/2020 Time: 12:24pm Height Above Ground: 1600mm Modified elements: Nil Assumptions: Height and Length are relative to the documented site features plan; however definitive accuracy cannot be guaranteed.

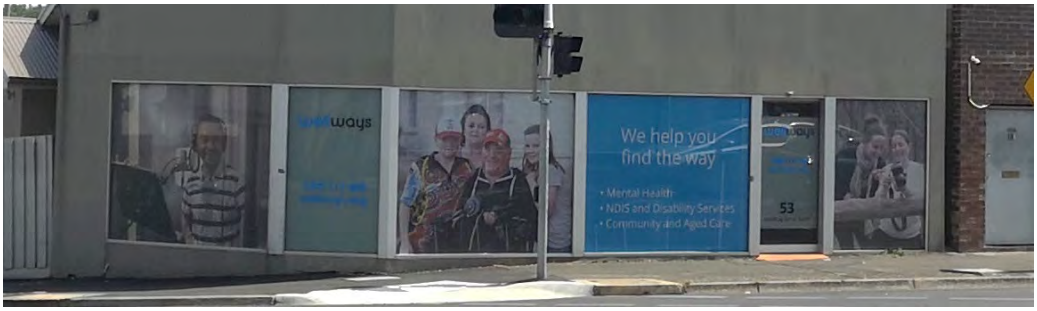
12. APPENDIX 4 – CLAUSE 52.05

The relevant requirements for advertising signage are set out in Clause 52.05, which outlines that the following items must be addressed:

Site Context Report
Included on page A01 & A02 of the town planning documentation.

Location for Proposed Sign
Included on page A02 of the town planning documentation.

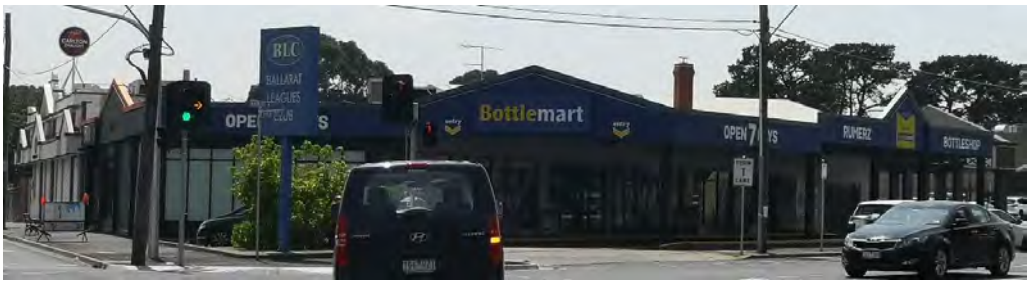
Location and Size of Existing Signage on the Site
The subject site has some business identification signs located in the windows of the building. The total size of these signs is approximately 18m2. They are pictured below:



Location and Form of Existing Signage on Abutting Properties
A number of abutting properties have signage and are painted in corporate colours. This is to be expected in such a robust commercial area.

The property at 74 Mair St E is painted in corporate colours (grey) and has business identification signs on the wall. An image is shown below:

Ballarat Leagues Club (located on the opposite side of Hummfray St N) has extensive signage. This comes in multiple forms – freestanding & wall mounted and business identification & promotion. There is even an electronic sign, albeit on a much smaller scale than the sign proposed in this application. Images are shown below:



The property on the opposite side of Mair St (Table 48 – 48 Humffray St) has a small amount of business identification signage mounted to the wall. This is shown below:

The Location of Closest Traffic Control Signs
The closest traffic control sign is only metres away (traffic lights). Vicroads have already reviewed the proposed sign and are content that it will not reduce the effectiveness of these lights.

View Lines or Vistas Which May Be Affected by the Proposed Sign:
There are no important views or vistas impacted by the proposed sign.

Dimensions, Height Above Ground Level and Extent of Projection of the Proposed Sign
Included on page A03 of the town planning documentation.

Height, Width & Depth of the Total Sign Structure Including Method of Support and any Associated Structures Such as Safety Devices and Service Platforms
Included on page A03 of the town planning documentation.

Details of Associated On-Site Works
Installation of support structure via crane (no onsite welding, all bolted together), installation of cladding, installation of electronic LED screen with crane.

Details of any Form of Illumination Including Details of Baffles and the Times at Which the Sign Would be Illuminated
The proposed sign is electronic – with internal LED's providing illumination. The brightness of the LED's is automatically adjusted based on the external conditions. Specifications for the screen are provided in this report, and an illumination report will be provided.

The Colour, Lettering Style and Materials of the Proposed Sign
Included on page A03 of the town planning documentation.

The Size of the Display (Total Advertising Area Including all Sides of a Multi-Sided Sign)
Included on page A03 of the town planning documentation. Also referenced in section 5.1 of this report.

The Location of any Corporate Logo Box and Proportion of Display Area Occupied by such a Logo Box
Included on page A03 of the town planning documentation.

Any Landscaping Details
No additional landscaping details.

A Description of the Existing Character of the Area Including Built Form and Landscapes
Refer to section 4 of this report.

The Location of any Other Signs Over 18 Square Metres, or Scrolling, Electronic or Animated Signs Within 200 Metres of the Site
Most properties along this stretch of Mair St have prominent signage. The properties at 61, 65 & 67 Mair St all have signage that is over 18m2 in size. Images are below:

The closest electronic signs are at Ballarat Leagues Club (~1m2) and 75 Curtis St (21m2).

Any Existing Identifiable Advertising Theme in the Area
As shown above and in Appendix 5, almost all properties along this stretch of Mair St have medium to large sized business identification signage. There is a mixture of freestanding and wall-mounted signs.

Photo Montages or a Streetscape Perspective of the Proposed Sign
Included on page A04 of the town planning documentation.

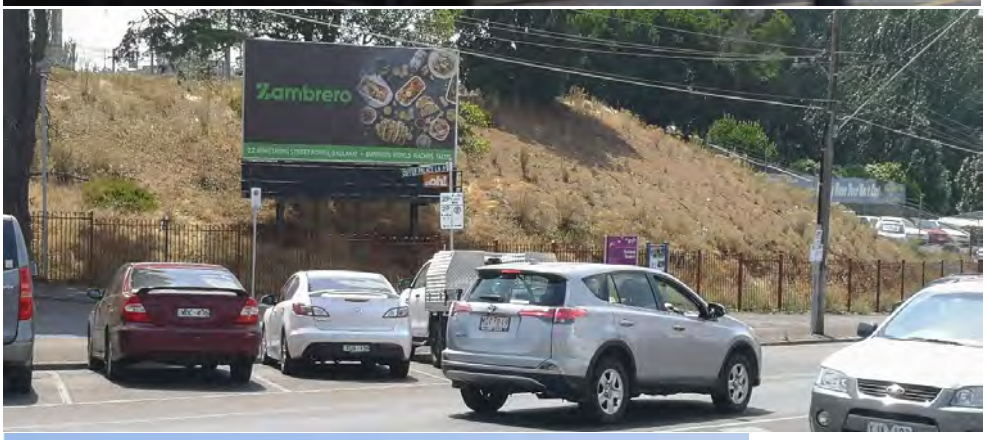
Level of Illumination
Please refer to appendix 6 for further information on the illumination of the screen.

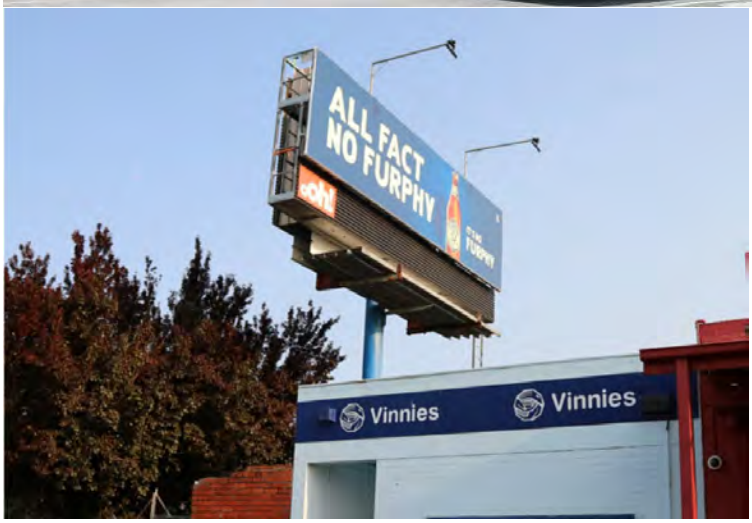
The Relationship to any Significant or Prominent Views and Vistas
As identified above, the proposal is deemed as having no effect on any important views or vistas.

In summary, the proposal is representative of the guidelines set out in clause 52.05. The proposal is characteristic to the scale of the surrounding context of built form. The impacts on any important or significant views are negligible.

13. APPENDIX 5 – SURROUNDING SIGNAGE & BUILT FORM

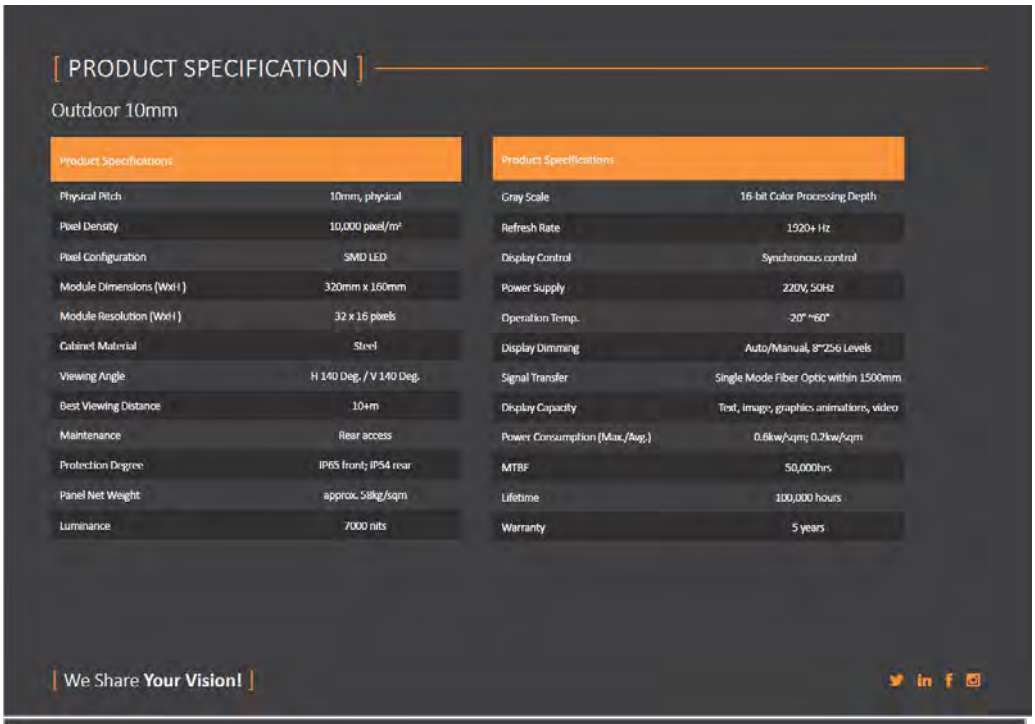
Regional Billboard Co Pty Ltd
A 62 John St, Eltham VIC 3095
E james@regionalbillboardco.com.au
P 0400 096 182





Regional Billboard Co Pty Ltd
A 62 John St, Eltham VIC 3095
E james@regionalbillboardco.com.au
P 0400 096 182

14. APPENDIX 6 – SCREEN SPECIFICATIONS



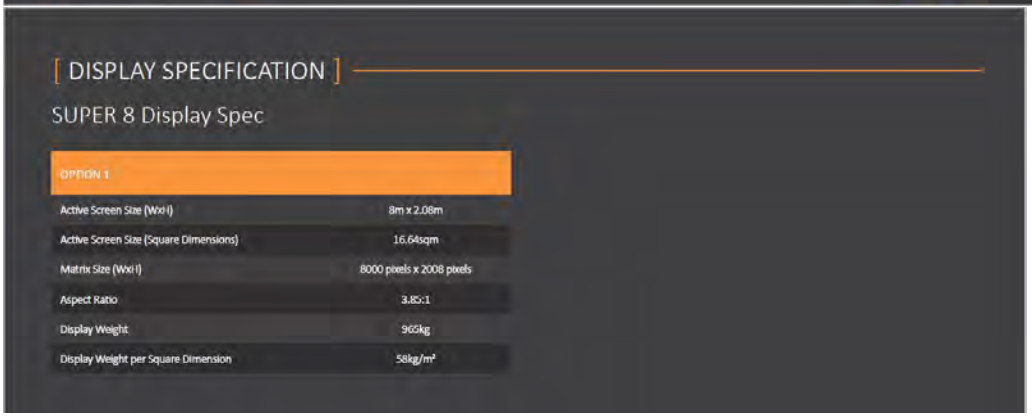
[PRODUCT SPECIFICATION]

Outdoor 10mm

Product Specifications	
Physical Pitch	10mm, physical
Pixel Density	10,000 pixel/m²
Pixel Configuration	SMD LED
Module Dimensions (WxH)	320mm x 160mm
Module Resolution (WxH)	32 x 16 pixels
Cabinet Material	Steel
Viewing Angle	H 140 Deg. / V 140 Deg.
Best Viewing Distance	10+m
Maintenance	Rear access
Protection Degree	IP65 front; IP54 rear
Panel Net Weight	approx. 58kg/sqm
Luminance	7000 nits

Product Specifications	
Gray Scale	16-bit Color Processing Depth
Refresh Rate	1920+ Hz
Display Control	Synchronous control
Power Supply	220V, 50Hz
Operation Temp.	-20° ~60°
Display Dimming	Auto/Manual, 8~256 Levels
Signal Transfer	Single Mode Fiber Optic within 1500mm
Display Capacity	Text, image, graphics animations, video
Power Consumption (Max./Avg.)	0.6kw/sqm; 0.2kw/sqm
MTBF	50,000hrs
Lifetime	100,000 hours
Warranty	5 years

[We Share **Your Vision!**]



[DISPLAY SPECIFICATION]

SUPER 8 Display Spec

OPTION 1	
Active Screen Size (WxH)	8m x 2.08m
Active Screen Size (Square Dimensions)	16.64sqm
Matrix Size (WxH)	8000 pixels x 2008 pixels
Aspect Ratio	3.85:1
Display Weight	965kg
Display Weight per Square Dimension	58kg/m²

15. APPENDIX 7 – VICROADS TEN POINT CHECKLIST

No.	Item	Comment/Response
01	Obstructs a driver's line of sight at an intersection, curve or point of egress from an adjacent property.	The proposed sign is to be located on the rooftop of the existing building, so will have no impact on any views for drivers.
02	Obstructs a driver's view of a traffic control device, or is likely to create a confusing or dominating background which might reduce the clarity or effectiveness of a traffic control device.	Vicroards have already cleared the proposed sign in relation to any issues with the nearby traffic lights.
03	Could dazzle or distract drivers due to its size, design or colouring, or it being illuminated, reflective, animated or flashing.	The advertising faces have strict guidelines regarding the design and coloration of advertising. The sign will not be reflective, animated or flashing. The LED's automatically adjust their illumination based on conditions.
04	Is at a location where particular concentration is required, such as a high pedestrian volume intersection.	Vicroads have already assessed the proposed sign.
05	Is likely to be mistaken for a traffic control device, because it contains red, green or yellow lighting, or has red circles, octagons, crosses, triangles or arrows.	The advertising face is reviewed under strict guidelines to ensure no traffic control symbolism exists.
06	Requires close study from a moving or stationary vehicle in a location where the vehicle would be unprotected from passing traffic.	It is considered that the proposal would not require a detailed study.
07	Invites drivers to turn where there is fast moving traffic or the sign is so close to the turning point that there is no time to signal and turn safely.	It is understood that the proposed sign would not have any traffic control symbolism or directional advice to drivers.
08	Is within 100 metres of a rural railway crossing.	The proposal is not within 100m of a rural railway crossing.
09	Has insufficient clearance from vehicles on the carriageway.	The proposal will not effect the current clearance conditions on the subject site.
10	Could mislead drivers or be mistaken as an instruction to drivers.	As is outlined above, strict guidelines are adhered to in order to ensure advertising faces do provide instructions to drivers.

16. APPENDIX 8 – VICROADS RESPONSE

James Course

From: Peter Gstrein <Peter.Gstrein@roads.vic.gov.au>
Sent: Thursday, 16 January 2020 10:18 AM
To: james@regionalbillboardco.com.au
Subject: RE: [External] VicRoads Ref: 24720/18 - 53 HUMFFRAY STREET NORTH, BAKERY HILL

Hi James.

Regional Roads Victoria would not object to this proposal, providing the measures you have listed below are adhered to.

Regards,

Peter Gstrein
Senior Statutory Planning Officer

South Western Region
Part of the Department of Transport
29 Jamieson Street Warrnambool
T 0408 317 254
E peter.gstrein@roads.vic.gov.au
regionalroads.vic.gov.au

I acknowledge the Traditional Aboriginal Owners of Country throughout Victoria and pay my respect to Elders past and present and to the ongoing living culture of Aboriginal people.

From: "James Course" <james@regionalbillboardco.com.au>
To: <western.mail@roads.vic.gov.au>
Date: 07/01/2020 09:42 AM
Subject: [External] VicRoads Ref: 24720/18 - 53 HUMFFRAY STREET NORTH, BAKERY HILL

Ext: Business Area:
Fax: Internet:
File Name: File Description:
This email is from an external source. If it is a Business Record remember to file it in QuickDocs

Good Morning,

I am writing to you regarding a previous planning referral (VicRoads Ref: 24720/18) for 53 Humffray Street North, Bakery Hill which was refused (See attached VicRoads response). We have now taken over this proposal and wish to seek your comments prior to submitting to council

1

so we don't run into the same issues which arose previously. As you can see by the attached drawings, we have adjusted the proposal to address the concerns previously raised. Primarily:

- The proposal has been raised so it will not form the backdrop to any of the adjoining intersections traffic control devices.
- I have attached a reference lighting impact assessment (for another site), we would prepare a site specific assessment to ensure that the maximum allowable veiling luminance would be under 0.25 cd/m2.
- We would also suggest the following permit conditions be included:

1. No advertisement may be displayed for less than 30 seconds and must be static.
2. The transition from one advertisement to another must be instantaneous.
3. In relation to the images displayed on the sign:

    I. Sequences of images giving the illusion of continuous movement must not be displayed.
    II. images capable of being mistaken for traffic signals or traffic control devices because they, for example, contain red, amber or green circles, octagons, crosses or triangles must not be displayed.
    III. images or text capable of being mistaken as an instruction to a road user must not be displayed.
    IV. flashing background, flashing text or flashing images must not be displayed.

4. The sign must not dazzle or distract road users due to its colouring.
5. The luminance of the advertising sign must be such that it does not give a veiling luminance to the driver, of greater than 0.25 cd/m², throughout the driver's approach to the advertising sign.
6. In the event of an attack by a computer hacker or similar resulting in unauthorised display of visual images or any other display malfunction, the electronic sign is to shut down and cease any form of visual output until the malfunction is repaired.

If you could please review the proposed design and provide comments prior to a submission to council it would be greatly appreciated. I don't need a formal referral response, just some guidance that something of this nature would meet your criteria for road safety.

Cheers
James

REGIONAL BILLBOARD CO.

James Course
m: 0400 096 182
a: 62 John St, Eltham VIC 3095
e: james@regionalbillboardco.com.au
w: www.regionalbillboardco.com.au

2

7. GENERAL BUSINESS - MATTERS ARISING FROM THE AGENDA

8. CLOSE